

EPA Region 5 Records Ctr.



262758

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5

IN THE MATTER OF:
SOUTH DAYTON DUMP AND
LANDFILL

City of Moraine

Montgomery County, Ohio

Respondents

Listed in Appendix C

ADMINISTRATIVE SETTLEMENT
AGREEMENT AND ORDER ON
CONSENT FOR REMEDIAL
INVESTIGATION/FEASIBILITY STUDY

U.S. EPA Region 5
CERCLA Docket No. _____

Proceeding Under Sections 104, 107 and
122 of the Comprehensive Environmental
Response, Compensation, and Liability Act,
as amended, 42 U.S.C. §§ 9604, 9607 and
9622.

VIEW- '06 -C-852

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ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY

I. JURISDICTION AND GENERAL PROVISIONS

1. This Administrative Settlement Agreement and Order on Consent ("Settlement Agreement") is entered into voluntarily by the United States Environmental Protection Agency ("U.S. EPA") and the Respondents listed in Appendix C ("Respondents"). The Settlement Agreement concerns the preparation and performance of a remedial investigation and feasibility study ("RI/FS") at the South Dayton Dump and Landfill Site located on Dryden Road (sometimes called Springboro Pike) in Moraine, Ohio ("Site") and the reimbursement for future response costs incurred by U.S. EPA in connection with the RI/FS for this Site.

2. This Settlement Agreement is issued under the authority vested in the President of the United States by Sections 104, 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended, 42 U.S.C. §§ 9604, 9607 and 9622 ("CERCLA"). This authority was delegated to the Administrator of U.S. EPA on January 23, 1987, by Executive Order 12580, 52 Fed. Reg. 2926 (Jan. 29, 1987), and further delegated to Regional Administrators on May 11, 1994, by U.S. EPA Delegation Nos. 14-14-C and 14-14-D. This authority was further redelegated by the Regional Administrator, U.S. EPA, Region 5 to the Director, Superfund Division, U.S. EPA, Region 5 by U.S. EPA Delegation Nos. 14-14-C and 14-14-D on May 2, 1996.

3. In accordance with Section 104(b)(2) and Section 122(j)(1) of CERCLA, 42 U.S.C. §§ 9604(b)(2) and 9622(j)(1), U.S. EPA notified the Federal and State natural resource trustees on August 1, 2005 of negotiations with potentially responsible parties regarding the release of hazardous substances that may have resulted in injury to the natural resources under Federal trusteeship. In accordance with Section 121(f)(1)(F), U.S. EPA has notified the State of Ohio (the "State") on August 4, 2005, of negotiations with potentially responsible parties regarding the implementation of the remedial investigation and feasibility study for the Site.

4. U.S. EPA and Respondents recognize that this Settlement Agreement has been negotiated in good faith and that the actions undertaken by Respondents in accordance with this Settlement Agreement do not constitute an admission of any liability. Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Settlement Agreement, the validity of the findings of fact, conclusions of law and determinations in Sections V and VI of this Settlement Agreement. Respondents agree to comply with and be bound by the terms of this Settlement Agreement and further agree that they will not contest the basis or validity of this Settlement Agreement or its terms.

II. PARTIES BOUND

5. This Settlement Agreement applies to and is binding upon U.S. EPA and upon Respondents and their agents, heirs, successors and assigns. Any change in ownership or corporate status of a Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter such Respondent's responsibilities under this Settlement Agreement.

6. Respondents are jointly and severally liable for carrying out all activities required by this Settlement Agreement. However, the **financial** contribution of Respondents Boesch and Grillot to carrying out the activities required by this Settlement Agreement is limited to the balance in the South Dayton Environmental Remediation Trust being made available to the other Respondents to carry out the Work. In the event of the insolvency or other failure of any one or more Respondents to implement the requirements of this Settlement Agreement, the remaining Respondents shall complete all such requirements.

7. Respondents shall ensure that their contractors, subcontractors, and representatives receive a copy of this Settlement Agreement and comply with this Settlement Agreement. Respondents shall be responsible for any noncompliance with this Settlement Agreement.

8. Each undersigned representative of Respondents certifies that he or she is fully authorized to enter into the terms and conditions of this Settlement Agreement and to execute and legally bind the Respondents to this Settlement Agreement.

III. STATEMENT OF PURPOSE

9. In entering into this Settlement Agreement, the objectives of U.S. EPA and Respondents are: (a) to determine the nature and extent of contamination and any current or potential threat to the public health, welfare, or the environment posed by the release or threatened release of hazardous substances, pollutants or contaminants at or from the Site and to collect sufficient data for developing and evaluating effective remedial alternatives by conducting a Remedial Investigation ("RI") as more specifically set forth in the Statement of Work ("SOW") attached as Appendix A to this Settlement Agreement; (b) to identify and evaluate remedial alternatives that protect human health and the environment by preventing, eliminating, reducing or controlling any release or threatened release of hazardous substances, pollutants, or contaminants at or from the Site, by conducting a Feasibility Study ("FS") as more specifically set forth in the Statement of Work ("SOW") in Appendix A to this Settlement Agreement; and (c) to recover response and oversight costs incurred by U.S. EPA with respect to this Settlement Agreement

10. The Work conducted under this Settlement Agreement is subject to approval by U.S. EPA and shall provide all appropriate and necessary information to assess site conditions and evaluate alternatives to the extent necessary to select a remedy that will be consistent with CERCLA and the National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R.

Part 300 (“NCP”). Respondents shall conduct all Work under this Settlement Agreement in compliance with CERCLA, the NCP and all applicable U.S. EPA guidances, policies, and procedures.

IV. DEFINITIONS

11. Unless otherwise expressly provided herein, terms used in this Settlement Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Settlement Agreement or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:

- a. “ARARs” mean all applicable local, state, and federal laws and regulations, and all “applicable requirements” or “relevant and appropriate requirements” as defined at 40 C.F.R. § 300.5 and 42 U.S.C. § 9261(d).
- b. “CERCLA” shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601, *et seq.*
- c. “Day” shall mean a calendar day. In computing any period of time under this Settlement Agreement, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.
- d. “Effective Date” shall be the effective date of this Settlement Agreement as provided in Section XXIX.
- e. “EPA” or “U.S. EPA” shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
- g. “OEPA” shall mean the Ohio Environmental Protection Agency and any successor departments or agencies of the State.
- h. “Engineering Controls” shall mean constructed containment barriers or systems that control one of the following: downward migration, infiltration or seepage of surface runoff or rain; or natural leaching migration of contaminants through the subsurface over time. Examples include caps, engineered bottom barriers, immobilization processes, and vertical barriers.
- i. “Future Response Costs” shall mean all costs, including, but not limited to, direct and indirect costs, that the United States incurs in, reviewing or developing plans, reports, technical memoranda and other items pursuant to this Settlement Agreement, conducting community relations, providing technical assistance grants to community groups (if any), verifying the Work, or otherwise implementing, overseeing, or enforcing this Settlement Agreement, including but not limited to, payroll costs, contractor costs (including fees), travel

costs, laboratory costs, ATSDR costs, the costs incurred pursuant to Paragraph 55 and 57 (costs and attorneys fees and any monies paid to secure access, including the amount of just compensation) and Paragraph 41 (emergency response)

j. “Institutional controls” shall mean non-engineered instruments, such as administrative and/or legal controls, that help to minimize the potential for human exposure to contamination and/or protect the integrity of a remedy by limiting land and/or resource use. Examples of institutional controls include easements and restrictive covenants, zoning restrictions, special building permit requirements, and well drilling prohibitions.

k. “Interest” shall mean interest at the rate specified for interest on investments of the U.S. EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

l. “NCP” or “National Contingency Plan” shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

m. “Settlement Agreement” shall mean this Administrative Settlement Agreement and Order on Consent, the SOW, all appendices attached hereto (listed in Section XXVII) and all documents incorporated by reference into this document including without limitation U.S. EPA-approved submissions. U.S. EPA-approved submissions (other than progress reports) are incorporated into and become a part of the Settlement Agreement upon approval by U.S. EPA. In the event of conflict between this Settlement Agreement and any appendix, this Settlement Agreement shall control.

n. “Paragraph” shall mean a portion of this Settlement Agreement identified by an Arabic numeral.

o. “Parties” shall mean U.S. EPA and Respondents.

p. “RCRA” shall mean the Resource Conservation and Recovery Act, also known as the Solid Waste Disposal Act, as amended, 42 U.S.C. §§ 6901, *et seq.*

q. “Respondents” shall mean those Parties identified in Appendix C, which is a list of those Parties which have signed this Settlement Agreement and agreed to be bound by the terms of this Administrative Order on Consent (Settlement Agreement).

r. “RI/FS Planning Documents” shall mean the RI/FS Work Plan; the Sampling and Analysis Plan, consisting of both the Field Sampling Plan and the Quality Assurance Project Plan; Laboratory and Contractor Quality Management Plans; and a Health and Safety Plan.

s. “Section” shall mean a portion of this Settlement Agreement identified by a Roman numeral.

t. “Site” shall mean the South Dayton Dump and Landfill Superfund Site, (“Site”) located on Dryden Road (sometimes called Springboro Pike) in Moraine, Ohio. The Site is depicted generally on the figures (map and aerial photograph of the Site) attached as Appendix B and includes nearby areas where hazardous substances, pollutants or contaminants have or may have come to be located from the Site, or from former operations at the Site.

u. “State” shall mean the State of Ohio.

v. “Statement of Work” or “SOW” shall mean the Statement of Work for development of a RI/FS for the South Dayton Dump and Landfill Site, as set forth in Appendix A to this Settlement Agreement. The Statement of Work is incorporated into this Settlement Agreement and is an enforceable part of this Settlement Agreement as are any modifications made thereto in accordance with this Settlement Agreement. The SOW is divided into eight numbered Tasks. Each Task is divided into numbered subdivisions (*e.g.*, 1.2.1.3. Leachate Investigation). References to numbered Task subdivisions in the SOW will be so identified, for example, SOW Task 1.2.1.3. Leachate Investigation).

w. “Waste Material” shall mean (1) any “hazardous substance” under Section 101(14) of CERCLA, 42 U.S.C. § 9601(14); (2) any pollutant or contaminant under Section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (3) any “solid waste” under Section 1004(27) of RCRA, 42 U.S.C. § 6903(27); and (4) any “hazardous waste” under Ohio Revised Code, Section 3734.01 (J).

x.. “Work” shall mean all activities Respondents are required to perform under this Settlement Agreement, except those required by Section XIV (Retention of Records).

V. FINDINGS OF FACT

12. Based on available information, including the Administrative Record in this matter, U.S. EPA hereby finds and, for purposes of enforceability of this Order only, the Respondents stipulate that the factual statutory prerequisites under CERCLA necessary for issuance of this Settlement Agreement and Administrative Order have been met. U.S. EPA's finding is based on the following specific findings which U.S. EPA asserts as facts:

13. The South Dayton Dump and Landfill Site comprises approximately 80 acres and is located at 1975 Dryden Road (sometimes called Springboro Pike) in Moraine, Ohio. The Site is adjacent to the floodplain of the Great Miami River. Approximately 25,060 people live within a 4-mile radius of the Site. Six single family residences are located on the northwest side of East River Road and are adjacent to the southeast boundary of the Site. A seventh single family home is located on the southeast side of East River Road and is within 300 feet of the Site. A trailer

park with several residences is also situated approximately 300 feet southeast of the Site at the southeast intersection of Dryden Road and East River Road.

14. Valley Asphalt, Jim City Salvage, the Miami Conservancy District, Ronald Barnett, Margaret C. Grillot and Kathryn A. Boesch are the current owners of the Site. A 49.87 acre portion of the Site (Parcel A) was purchased by Horace Boesch in 1937. In 1945 Horace Boesch purchased an additional 30 acre portion of the Site (Parcel B). In 1947, Horace and Roxie Boesch conveyed an undivided $\frac{1}{2}$ interest in Parcel B to Cyril Grillot. In 1951, Horace and Roxie Boesch conveyed an undivided $\frac{1}{2}$ interest in Parcel A to Cyril Grillot. From 1947 until the present, most of the Site has been owned by various members of the Boesch and Grillot families. In 1958, Horace and Roxie Boesch and Cyril J. and Ruby Grillot recorded a conveyance of a property interest (Right of Way Grant) to Dayton Power and Light. In 1975, Horace and Kathryn A. Boesch and Cyril J. and Ruby Grillot recorded a conveyance of a property interest (easement) to the University of Dayton. After Horace Boesch died in 1979, his estate conveyed shares of his interest in the Site property to members of his family. Some of these heirs conveyed their interest or a portion thereof to Katharine Boesch. Current owners of the real property where hazardous waste dumping and landfilling areas took place in the past, as part of the operations of the South Dayton Dump and Landfill, include Kathryn A. Boesch, Margaret C. Grillot, Valley Asphalt, Jim City Salvage, Miami Conservancy District and Ronald Barnett.

15. Disposal of waste materials began at the Site in 1941. Materials dumped at the Site included drummed wastes. Known hazardous substances were disposed at the Site between June 1973 and July 1976, including drums containing hazardous waste from nearby facilities. Some of the drums contained cleaning solvents (1,1,1-trichloroethane ("TCA"); methyl ethyl ketone ("MEK"); and xylene); cutting oils; paint; Stoddard solvents; and machine-tool, water-based coolants. Handwritten notes on an undated tax map from the Montgomery County Health Department indicate that the site had previously accepted materials including "oils, paint residue, brake fluids, chemicals for cleaning metals, solvents, etc." In addition, a CERCLA Notification of Hazardous Waste Site Form submitted by Industrial Waste Disposal Company, Inc. ("IWD") in 1981 indicated that the Site had been used as a disposal facility for the industrial and municipal wastes of IWD's customers. The notification did not include information about the specific types of wastes. More recently, the Site operated under a solid waste disposal permit issued by Moraine County Health Department ("MCHD"). The permit allowed disposal of solid, inert, insoluble materials such as unregulated foundry sand, slag, glass, and demolition debris. There is no liner at the Site.

16. In 1985, OEPA conducted a Preliminary Assessment ("PA") at the Site. Based on this PA's findings, a U.S. EPA Field Investigation Team ("FIT") conducted a Supplemental Site Investigation ("SSI") at the Site. In 1991, the FIT collected 11 soil samples at or near the Site. Contaminants have been detected in on-Site soil samples at levels above background. Additionally, hazardous substances were reportedly disposed of at the Site in the past.

17. Soil sample results during the 1991 EPA FIT sample detected hazardous substances in on-Site soil samples at levels significantly above background. The following substances were

detected: 1,2-Dichloroethene at 200 micrograms per kilogram in soil sample S8, tetrachloroethene at 11 micrograms per kilogram in soil sample S8, toluene at 7 micrograms per kilogram in soil sample S5, polychlorinated biphenyls, including Aroclor 1248 and Aroclor 1260 at 4,200 and 2,800 micrograms per kilogram, respectively, in soil sample S2, antimony at 31.6 milligrams per kilogram in soil sample S3, arsenic at 69.3 milligrams per kilogram in soil sample S9, barium as high as 991 milligrams per kilogram in soil sample S1, cadmium as high as 14 milligrams per kilogram in soil sample S3, chromium at 91.7 milligrams per kilogram in soil sample S3, mercury as high as .31 milligrams per kilogram in soil sample S3, nickel as high as 402 milligrams per kilogram in soil sample S8, lead as high as 3,300 milligrams per kilogram in soil sample S3, and zinc as high as 2,350 milligrams per kilogram in soil sample S3. Also, several polynuclear aromatic hydrocarbons were detected in several soil samples. Phenanthrene, benzo[a]anthracene, and benzo[a]pyrene were detected at concentrations as high as 16,000, 8,500, and 5,700 micrograms per kilogram, respectively, in soil sample S3; and fluoranthene was detected at 21,000 micrograms per kilogram in soil sample S6. Selected soil samples collected during OEPA's July 9, 1996 Phase II Site Team Evaluation Prioritization ("STEP") Investigation revealed higher concentrations than those found during the 1991 EPA FIT sampling. These samples included the following concentrations:

Tetrachloroethene: 59 micrograms/kilogram (S01)
 Trichloroethene: 11 micrograms/kilogram (S10)
 Antimony: 278 milligrams/kilogram (S08)
 Arsenic: 141 milligrams/kilogram (S08)
 Barium: 13,000 milligrams/kilogram (S08)
 Cadmium: 16.3 milligrams/kilogram (S10)
 Copper: 191,000 milligrams/kilogram (S10)
 Lead: 12,100 milligrams/kilogram (S10)
 Zinc: 11,500 milligrams/kilogram (S10)

See OEPA Site Team Evaluation Prioritization Report South Dayton Dump and Landfill, December 24, 1996, Table 1 on pages 18-21.

18. In 2000, Valley Asphalt conducted a drum and soil removal from real property it owned within the boundaries of the Site. A composite sample collected from the drums was TCLP toxic for cadmium (detected at 2.11 milligrams/liter; regulatory limit 1 milligram/liter) and lead (detected at 8.26 milligram/liter; regulatory limit 5 milligrams/liter) and contained contaminants including:

PCB-1254: 75,000 micrograms/kilogram
 Benzene: 7,000 micrograms/kilogram
 Chlorobenzene: 1,700 micrograms/kilogram
 Ethylbenzene: 84,000 micrograms/kilogram
 Toluene: 530,000 micrograms/kilogram
 Trichloroethene: 64,000 micrograms/kilogram

Vinyl Chloride:840 micrograms/kilogram
Xylene: 340,000 micrograms/kilogram"

See Sample "Valley Dryden A 05/17/00" in "Appendix C, Laboratory Results" of TCA Environmental, Inc. "Environmental Remediation Report at Valley Asphalt, Dryden Road Moraine, Ohio, Montgomery County" prepared for Valley Asphalt dated September 5, 2000.

19. Between 1998 and 2004, the owners of part of the Site conducted several investigations at the landfill, including groundwater and surface water sampling. Groundwater analytical results from 2002 revealed maximum concentrations of vinyl chloride at 180 micrograms/liter (MW-101A) and trichloroethylene at 76 micrograms/liter in MW-210. In 2004 the maximum concentration of vinyl chloride detected in the groundwater by the owners was 20 microgram/liter (MW-101A) and the maximum concentration of trichloroethylene was 250 micrograms/liter (MW-210, sampling date 10/15/04). The U.S. EPA Maximum Contaminant Level ("MCL") for vinyl chloride is 2 micrograms/liter and the MCL for trichloroethylene is 5 micrograms/liter.

20. The South Dayton Dump and Landfill Site was proposed for inclusion on the National Priorities List ("NPL"), pursuant to CERCLA Section 105, 42 U.S.C. § 9605, on September 23, 2004. The Site received a Hazard Ranking Score ("HRS") of 48.63. *See* 69 FR 56970-01 (2004).

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the Administrative Record in this matter, U.S. EPA has determined that:

21. The South Dayton Dump and Landfill Site is a "facility" as defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

22. The contamination found at the Site, as identified in the Findings of Fact above, includes "hazardous substances" as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14).

23. The conditions described in paragraphs 16-18 of the Findings of Fact above constitute an actual and/or threatened "release" of a hazardous substance from the facility as defined in Section 101(22) of CERCLA, 42 U.S.C. § 9601(22).

24. Each Respondent is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

25. Respondents are responsible parties under Sections 104, 107 and 122 of CERCLA, 42 U.S.C. §§ 9604, 9607 and 9622. Each Respondent is either: a person who generated the hazardous substances found at the Site, a person who at the time of disposal of any hazardous

substances owned or operated the Site, a person who is the “owner(s)” and/or “operator(s)” of the facility, as defined by Section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1), or is a person who arranged for disposal or transport for disposal of hazardous substances at the Site. Each Respondent therefore may be liable under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a).

26. The actions required by this Settlement Agreement are necessary to protect the public health, welfare or the environment, are in the public interest, 42 U.S.C. § 9622(a), are consistent with CERCLA and the NCP, 42 U.S.C. §§ 9604(a)(1), 9622(a), and will expedite effective remedial action and minimize litigation, 42 U.S.C. § 9622(a).

27. U.S. EPA has determined that Respondents are qualified to conduct the RI/FS within the meaning of Section 104(a) of CERCLA, 42 U.S.C. § 9604(a), and will carry out the Work properly and promptly, in accordance with Sections 104(a) and 122(a) of CERCLA, 42 U.S.C. §§ 9604(a) and 9622(a), if Respondents comply with the terms of this Settlement Agreement.

VII. SETTLEMENT AGREEMENT AND ORDER

28. Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby Ordered and Agreed that Respondents shall comply with all provisions of this Settlement Agreement, including, but not limited to, all appendices to this Settlement Agreement and all documents incorporated by reference into this Settlement Agreement.

VIII. DESIGNATION OF CONTRACTORS AND PROJECT COORDINATORS

29. Selection of Contractors, Personnel.

a. All Work performed under this Settlement Agreement shall be under the direction and supervision of qualified personnel. Within 7 days of the Effective Date of this Settlement Agreement, and before the Work outlined below begins, Respondents shall notify U.S. EPA in writing of the names, titles, and qualifications of the personnel, including contractors, subcontractors, consultants and laboratories to be used in carrying out such Work. With respect to any proposed contractor, Respondents shall demonstrate that the proposed contractor has a quality system which complies with ANSI/ASQC E4-1994, “Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs,” (American National Standard, January 5, 1995), by submitting a copy of the proposed contractor’s Quality Management Plan (“QMP”). The QMP should be prepared in accordance with “EPA Requirements for Quality Management Plans (QA/R-2),” (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by U.S. EPA. The qualifications of the persons undertaking the Work for Respondents shall be subject to U.S. EPA’s review, for verification that such persons meet minimum technical background and experience requirements. If Respondents fail to demonstrate to U.S. EPA’s satisfaction that

Respondents are qualified to perform properly and promptly the actions set forth in this Settlement Agreement, U.S. EPA may take over the work required by this Settlement Agreement.

b. If U.S. EPA disapproves in writing of any person(s)' technical qualifications, Respondents shall notify U.S. EPA of the identity and qualifications of the replacement(s) within 14 days of the written notice. If U.S. EPA subsequently disapproves of the replacement(s), U.S. EPA reserves the right to terminate this Settlement Agreement and to conduct a complete RI/FS, and to seek reimbursement for costs and penalties from Respondents. During the course of the RI/FS, Respondents shall notify U.S. EPA in writing of any changes or additions in the personnel used to carry out such Work, providing their names, titles, and qualifications. U.S. EPA shall have the same right to disapprove changes and additions to personnel as it has hereunder regarding the initial notification.

30. Within 7 days after the Effective Date, Respondents shall designate a Project Coordinator who shall be responsible for administration of all actions by Respondents required by this Settlement Agreement and shall submit to U.S. EPA the designated Project Coordinator's name, address, telephone number, and qualifications. To the greatest extent possible, the Project Coordinator shall be present on Site or readily available during Site Work. U.S. EPA retains the right to disapprove of the designated Project Coordinator. If U.S. EPA disapproves of the designated Project Coordinator, Respondents shall retain a different Project Coordinator and shall notify U.S. EPA of that person's name, address, telephone number and qualifications within 14 days following U.S. EPA's disapproval. Respondents shall have the right to change their Project Coordinator subject to U.S. EPA's right to disapprove. Respondents shall notify U.S. EPA three (3) days before such change is made. The initial notification may be made orally, but shall be promptly followed by a written notification.

31. U.S. EPA has designated Karen Cibulskis of the Superfund Division, Region 5 as its Project Coordinator. U.S. EPA will notify Respondents of a change in its designation of the Project Coordinator. Except as otherwise provided in this Settlement Agreement, Respondents shall direct all submissions required by this Settlement Agreement to:

Ms. Karen Cibulskis
Remedial Project Manager
U.S. EPA, Superfund Division
Mail Code SR-6J
77 West Jackson
Chicago, Illinois 60604-3590

Respondents are encouraged to make their submissions to U.S. EPA on recycled paper (which includes significant post-consumer waste paper content where possible) and using two-sided copies. Respondents shall make submissions electronically according to U.S. EPA Region 5 specifications. Receipt by Respondents' Project Coordinator of any notice or communication from U.S. EPA relating to this Settlement Agreement shall constitute receipt by Respondents. Documents to be submitted to the Respondents shall be sent to:

Steve Quigley, P.E.
Principal-in-Charge/Project Manager
Conestoga-Rovers & Associates Ltd.
651 Colby Drive
Waterloo, Ontario N2V 1C2

32. U.S. EPA's Project Coordinator shall have the authority lawfully vested in a Remedial Project Manager ("RPM") and On-Scene Coordinator ("OSC") by the NCP. In addition, U.S. EPA's Project Coordinator shall have the authority consistent with the NCP to halt any Work required by this Settlement Agreement, and to take any necessary response action when s/he determines that conditions at the Site may present an immediate endangerment to public health or welfare or the environment. The absence of the U.S. EPA Project Coordinator from the area under study pursuant to this Settlement Agreement shall not be cause for the stoppage or delay of Work.

33. U.S. EPA and Respondents shall have the right, subject to Paragraph 30, to change their respective Project Coordinator. Respondents shall notify U.S. EPA three (3) days before such a change is made. The initial notification by either party may be made orally, but shall be promptly followed by a written notice.

34. U.S. EPA shall arrange for a qualified person to assist in its oversight and review of the conduct of the RI/FS, as required by Section 104(a) of CERCLA, 42 U.S.C. § 9604(a). Such person shall have the authority to observe Work and make inquiries in the absence of U.S. EPA, but not to modify the RI/FS Planning Documents or other work plans.

IX. WORK TO BE PERFORMED

35. a. Respondents shall conduct the RI/FS in accordance with the provisions of this Settlement Agreement, the SOW, CERCLA, the NCP, U.S. EPA guidance related to remedial investigations and feasibility studies including, but not limited to: the "Interim Final Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA" (OSWER Directive # 9355.3-01); "Guidance for Data Useability in Risk Assessment" (OSWER Directive #9285.7-05); Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part A), Interim Final (EPA-540-1-89-002), OSWER Directive 9285.7-01A, December 1, 1989; and Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments), Interim, (EPA 540-R-97-033), OSWER Directive 9285.7-01D, January 1998; Implementing Presumptive Remedies, U.S. EPA, Office of Emergency and Remedial Response, EPA-540-R-97-029, October 1997; Presumptive Remedy for CERCLA Municipal Landfill Sites, U.S. EPA, OSWER Directive No. 9355.0-49FS, EPA-540-F-93-035, September 1993; Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide, U.S. EPA, OSWER Directive 9355.3-18FS, EPA/540/F-95/009, August 1995; Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites, OSWER Directive 9283.1-12, EPA-540-R-96-023, October 1996; and any other guidances referenced in the SOW, and any RI/FS related guidance subsequently issued by U.S. EPA.

b. In the RI and FS Reports, Respondents shall address the factors required to be taken into account in Section 121 of CERCLA, 42 U.S.C. § 9621, and Section 300.430 of the NCP, 40 C.F.R. § 300.430. The RI shall characterize the geology and hydrogeology of the Site, determine the nature and extent of hazardous substances, pollutants or contaminants at or from the Site, and characterize all ecological zones including terrestrial, riparian, wetlands, aquatic/marine, and transitional. Respondents shall prepare, for inclusion with the RI Report, a determination of the nature and extent of the current and potential threat to the public health or welfare or the environment posed by the release or threatened release of any hazardous substances, pollutants, or contaminants at or from the Site, including a "Baseline Human Health Risk Assessment" and "Baseline Ecological Risk Assessment." In the FS Report, Respondents shall determine and evaluate (based on treatability testing, where appropriate) alternatives for remedial action that protect human health and the environment by recycling waste or by eliminating, reducing and/or controlling risks posed through each pathway at the Site. In the FS Report, the Respondents shall evaluate a range of alternatives including but not limited to those alternatives described in 40 C.F.R. § 300.430(e) and remedial alternatives that utilize permanent solutions and alternative treatment technologies or resource recovery technologies. The FS Reports shall include a detailed analysis of individual alternatives against each of the nine evaluation criteria in 40 C.F.R. § 300.430(e)(9)(iii) and a comparative analysis that focuses upon the relative performance of each alternative against the nine criteria in 40 C.F.R. § 300.430(e)(9)(iii). Respondents shall submit to U.S. EPA and the State six (6) copies of all plans, reports, submittals and other deliverables required under this Settlement Agreement, the SOW and the RI/FS Planning Documents in accordance with the approved schedule for review and approval pursuant to Section X (U.S. EPA Approval of Plans and Other Submissions). All deliverables required by the SOW shall be submitted as directed by the SOW (see Page 2 of the SOW for detailed instructions on this point). Upon request by U.S. EPA, Respondents shall submit in electronic form all portions of RI and FS Reports, any report or other deliverable Respondents are required to submit pursuant to provisions of this Settlement Agreement, including the SOW. Detailed requirements for all reports and deliverables required by the SOW are set forth on page 2 of the SOW. Upon approval by U.S. EPA, all deliverables under this Settlement Agreement, including the SOW, shall be incorporated into and become enforceable under this Settlement Agreement.

36. Community Involvement Plan

U.S. EPA will prepare a Community Involvement Plan, in accordance with U.S. EPA guidance and the NCP. As requested by U.S. EPA, Respondents shall provide information supporting U.S. EPA's community relations programs.

37. Modification of any plans.

a. If at any time during the RI/FS process, Respondents identify a need for additional data, Respondents shall submit a memorandum documenting the need for additional data to the U.S. EPA Project Coordinator within seven (7) days of identification. U.S. EPA in its

discretion will determine whether the additional data will be collected by Respondents and whether it will be incorporated into reports and deliverables.

b. In the event of unanticipated or changed circumstances at the Site, Respondents shall notify the U.S. EPA Project Coordinator by telephone within 24 hours of discovery of the unanticipated or changed circumstances. In addition to the authorities in the NCP, in the event that U.S. EPA determines that the immediate threat or the unanticipated or changed circumstances warrant changes in the RI/FS Planning Documents, U.S. EPA shall modify or amend the RI/FS Planning Documents in writing accordingly. Respondents shall perform the RI/FS Planning Documents as modified or amended.

c. U.S. EPA may determine that in addition to tasks defined in the initially approved RI/FS Planning Documents, other additional Work may be necessary to accomplish the objectives of the RI/FS as set forth in the SOW for this RI/FS. U.S. EPA may require that Respondents perform these response actions in addition to those required by the initially approved RI/FS Planning Documents, including any approved modifications, if it determines that such actions are necessary for a complete RI/FS.

d. Respondents shall confirm their willingness to perform the additional Work in writing to U.S. EPA within 7 days of receipt of the U.S. EPA request. If Respondents object to any modification determined by U.S. EPA to be necessary pursuant to this Paragraph, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution). The SOW and/or RI/FS Planning Documents shall be modified in accordance with the final resolution of the dispute.

e. Respondents shall complete the additional Work according to the standards, specifications, and schedule set forth or approved by U.S. EPA in a written modification to the RI/FS Planning Documents or written work plan supplement. U.S. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondents, and/or to seek any other appropriate relief.

f. Nothing in this Paragraph shall be construed to limit U.S. EPA's authority to require performance of further response actions as otherwise provided in this Settlement Agreement.

38. Off-Site Shipment of Waste Material.

a. Respondents shall, prior to any off-site shipment of Waste Material from the Site to an out-of-state waste management facility, provide written notification of such shipment of Waste Material to the appropriate state environmental official in the receiving facility's state and to U.S. EPA's Designated Project Coordinator. However, this notification requirement shall not apply to any off-site shipments when the total volume of all such shipments will not exceed 10 cubic yards.

b. Respondents shall include in the written notification the following information: (1) the name and location of the facility to which the Waste Material is to be shipped; (2) the type and quantity of the Waste Material to be shipped; (3) the expected schedule for the shipment of the Waste Material; and (4) the method of transportation. Respondents shall notify the state in which the planned receiving facility is located of major changes in the shipment plan, such as a decision to ship the Waste Material to another facility within the same state, or to a facility in another state.

c. The identity of the receiving facility and state will be determined by Respondents following the award of the contract for the remedial investigation and feasibility study. Respondents shall provide the information required by Subparagraph 38.b and 38.d as soon as practicable after the award of the contract and before the Waste Material is actually shipped.

d. Before shipping any hazardous substances, pollutants, or contaminants from the Site to an off-site location, Respondents shall obtain U.S. EPA's certification that the proposed receiving facility is operating in compliance with the requirements of CERCLA Section 121(d)(3), 42 U.S.C. § 9621(d)(3), and 40 C.F.R. § 300.440. Respondents shall only send hazardous substances, pollutants, or contaminants from the Site to an off-site facility that complies with the requirements of the statutory provision and regulation cited in the preceding sentence.

39. Meetings. Respondents shall make presentations at, and participate in, meetings at the request of U.S. EPA during the initiation, conduct, and completion of the RI/FS. In addition to discussion of the technical aspects of the RI/FS, topics will include anticipated problems or new issues. Meetings will be scheduled at U.S. EPA's discretion.

40. Progress Reports. In addition to the deliverables set forth in this Settlement Agreement, Respondents shall provide to U.S. EPA monthly progress reports by the 10th day of the following month. At a minimum, with respect to the preceding month, these progress reports shall (1) describe the actions which have been taken to comply with this Settlement Agreement during that month, (2) include hard copies and electronic copies (according to U.S. EPA Region 5 specifications) of all results of sampling and tests and all other data received by the Respondents (3) describe Work planned for the next two months with schedules relating such Work to the overall project schedule for RI/FS completion, and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

41. Emergency Response and Notification of Releases.

a. In the event of any action or occurrence during performance of the Work which causes or threatens a release of Waste Material from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Respondents shall immediately take all appropriate action. Respondents shall take these actions in accordance

with all applicable provisions of this Settlement Agreement, including, but not limited to, the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondents shall also immediately notify the U.S. EPA Project Coordinator or, in the event of his/her unavailability, the On Scene Coordinator ("OSC") or the Regional Duty Officer, U.S. EPA Region 5 Emergency Planning and Response Branch at (Tel: (312) 353-2318) of the incident or Site conditions. In the event that Respondents fail to take appropriate response action as required by this Paragraph, and U.S. EPA takes such action instead, Respondents shall reimburse U.S. EPA all costs of the response action not inconsistent with the NCP pursuant to Section XVIII (Payment of Response Costs).

b. In addition, in the event of any release of a hazardous substance from the Site, Respondents shall immediately notify the U.S. EPA Project Coordinator, the OSC or Regional Duty Officer at (312) 353-2318 and the National Response Center at (800) 424-8802. Respondents shall submit a written report to U.S. EPA within 7 days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, and not in lieu of, reporting under Section 103(c) of CERCLA, 42 U.S.C. § 9603(c), and Section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. § 11004, *et seq.*

X. U.S. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

42. After review of any plan, report or other item that is required to be submitted for approval pursuant to this Settlement Agreement, including the SOW, U.S. EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that Respondents modify the submission; or (e) any combination of the above. However, U.S. EPA shall not modify a submission without first providing Respondents at least one notice of deficiency and an opportunity to cure within 21 days, except where to do so would cause serious disruption to the Work or where previous submission(s) have been disapproved due to material defects.

43. In the event of approval, approval upon conditions, or modification by U.S. EPA, pursuant to Subparagraph 42(a), (b), (c) or (e), Respondents shall proceed to take any action required by the plan, report or other item, as approved or modified by U.S. EPA subject only to their right to invoke the Dispute Resolution procedures set forth in Section XV (Dispute Resolution) with respect to the modifications or conditions made by U.S. EPA. Following U.S. EPA approval or modification of a submittal or portion thereof, Respondents shall not thereafter alter or amend such submittal or portion thereof unless directed by U.S. EPA. In the event that U.S. EPA modifies the submission to cure the deficiencies pursuant to Subparagraph 42(c) and the submission had a material defect, U.S. EPA retains the right to seek stipulated penalties, as provided in Section XVI (Stipulated Penalties). U.S. EPA also retains the right to perform its own studies, complete the RI/FS (or any portion of the RI/FS), and seek reimbursement from Respondents for its costs; and/or seek any other appropriate relief.

44. Resubmission of Plans.

a. Upon receipt of a notice of disapproval, Respondents shall, within 15 days or such longer time as specified by U.S. EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval. Any stipulated penalties applicable to the submission, as provided in Section XVI, shall accrue during the 15-day period or otherwise specified period but shall not be payable unless the resubmission is disapproved or modified due to a material defect as provided in Paragraphs 45 and 46.

b. Notwithstanding the receipt of a notice of disapproval, Respondents shall proceed to take any action required by any non-deficient portion of the submission unless otherwise directed by U.S. EPA. Implementation of any non-deficient portion of a submission shall not relieve Respondents of any liability for stipulated penalties under Section XVI (Stipulated Penalties).

c. Respondents shall not proceed further with any subsequent activities or tasks until receiving U.S. EPA approval for the following deliverables: RI/FS Work Plan/Field Sampling Plan, Quality Assurance Project Plan, Draft Remedial Investigation Report, Treatability Testing Work Plan and Sampling and Analysis Plan, and Draft Feasibility Study Report. While awaiting U.S. EPA approval on these deliverables, Respondents shall proceed with all other tasks and activities which may be conducted independently of these deliverables, in accordance with the schedule set forth in this Settlement Agreement.

d. For all remaining deliverables not enumerated above in subparagraph 44.c., Respondents shall proceed with all subsequent tasks, activities and deliverables without awaiting U.S. EPA approval on the submitted deliverable. U.S. EPA reserves the right to stop Respondents from proceeding further, either temporarily or permanently, on any task, activity or deliverable at any point during the RI/FS.

45. If U.S. EPA disapproves a resubmitted plan, report or other item, or portion thereof, U.S. EPA may direct Respondents to correct the deficiencies. U.S. EPA also retains the right to modify or develop the plan, report or other item. Respondents shall implement any such plan, report, or item as corrected, modified or developed by U.S. EPA, subject only to their right to invoke the procedures set forth in Section XV (Dispute Resolution).

46. If upon resubmission, a plan, report, or item is disapproved or modified by U.S. EPA due to a material defect, Respondents shall be deemed to have failed to submit such plan, report, or item timely and adequately unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution) and U.S. EPA's action is revoked or substantially modified pursuant to a Dispute Resolution decision issued by U.S. EPA or superceded by an agreement reached pursuant to that Section. The provisions of Section XV (Dispute Resolution) and Section XVI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any stipulated penalties during Dispute Resolution. If U.S. EPA's disapproval or modification is not otherwise revoked, substantially modified or

superceded as a result of a decision or agreement reached pursuant to the Dispute Resolution process set forth in Section XV, stipulated penalties shall accrue for such violation from the date on which the initial submission was originally required, as provided in Section XVI.

47. In the event that U.S. EPA takes over some of the tasks, but not the preparation of the RI Report or the FS Report, Respondents shall incorporate and integrate information supplied by U.S. EPA into the final reports.

43. All plans, reports, and other items submitted to U.S. EPA under this Settlement Agreement shall, upon approval or modification by U.S. EPA, be incorporated into and enforceable under this Settlement Agreement. In the event U.S. EPA approves or modifies a portion of a plan, report, or other item submitted to U.S. EPA under this Settlement Agreement, the approved or modified portion shall be incorporated into and enforceable under this Settlement Agreement.

49. Neither failure of U.S. EPA to expressly approve or disapprove of Respondents' submissions within a specified time period, nor the absence of comments, shall be construed as approval by U.S. EPA. Whether or not U.S. EPA gives express approval for Respondents' deliverables, Respondents are responsible for preparing deliverables acceptable to U.S. EPA.

XI. QUALITY ASSURANCE, SAMPLING AND DATA AVAILABILITY

50. Quality Assurance. Respondents shall assure that Work performed, samples taken and analyses conducted conform to the requirements of the SOW, the QAPP and guidances identified therein. Respondents will assure that field personnel used by Respondents are properly trained in the use of field equipment and in chain of custody procedures. Respondents shall only use laboratories which have a documented quality system that complies with "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01/002, March 2001) or equivalent documentation as determined by U.S. EPA.

51. Sampling.

a. All results of sampling, tests, modeling or other data (including raw data) generated by Respondents, or on Respondents' behalf, during the period that this Settlement Agreement is effective, shall be submitted to U.S. EPA (in paper and electronic form according to U.S. EPA Region 5 specifications) in the next monthly progress report as described in Paragraph 40 of this Settlement Agreement. U.S. EPA will make available to Respondents validated data generated by U.S. EPA unless it is exempt from disclosure by any federal or state law or regulation.

b. Respondents shall verbally notify U.S. EPA, and the State at least 15 days prior to conducting any field events as described in the SOW and RI/FS Work Plan/Field Sampling Plan. At U.S. EPA's verbal or written request, or the request of U.S. EPA's oversight assistant, Respondents shall allow split or duplicate samples to be taken by U.S. EPA (and its authorized

representatives) and the State, of any samples collected by Respondents in implementing this Settlement Agreement. All split samples of Respondents shall be analyzed by the methods identified in the QAPP.

52. Data Availability.

a. At all reasonable times, U.S. EPA and its authorized representatives shall have the authority to enter and freely move about all property at the Site and off-site areas where Work, if any, is being performed, for the purposes of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Site or Respondents and its contractor pursuant to this Settlement Agreement; reviewing the progress of Respondents in carrying out the terms of this Settlement Agreement; conducting tests as U.S. EPA or its authorized representatives deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to U.S. EPA by Respondents. Respondents shall allow these persons to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to Work undertaken in carrying out this Settlement Agreement. Nothing herein shall be interpreted as limiting or affecting U.S. EPA's right of entry or inspection authority under federal law. All persons accessing the Site under this paragraph shall comply with all approved Health and Safety Plans.

b. Respondents may assert business confidentiality claims covering part or all of the documents or information submitted to U.S. EPA and the State under this Settlement Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. § 2.203(b). Documents or information determined to be confidential by U.S. EPA will be afforded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies documents or information when it is submitted to U.S. EPA and the State, or if U.S. EPA has notified Respondents that the documents or information are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2, Subpart B, the public may be given access to such documents or information without further notice to Respondents. Respondents agree not to assert confidentiality claims with respect to any data related to Site conditions, sampling, or monitoring. Respondents shall segregate and clearly identify all documents or information submitted under this Settlement Agreement for which Respondents assert business confidentiality claims.

53. In entering into this Settlement Agreement, Respondents waive any objections to any data gathered, generated, or evaluated by U.S. EPA, the State or Respondents in the performance or oversight of the Work that has been verified according to the quality assurance/quality control (QA/QC) procedures required by the Settlement Agreement or any U.S. EPA-approved Work Plans or Sampling and Analysis Plans. If Respondents object to any other data relating to the RI/FS, Respondents shall submit to U.S. EPA a report that specifically identifies and explains their objections, describes the acceptable uses of the data, if any, and identifies any limitations to the use of the data. The report must be submitted to U.S. EPA within 15 days of the monthly progress report containing the data.

XII. SITE ACCESS AND INSTITUTIONAL CONTROLS

54. If the Site, or any other property where access is needed to implement this Settlement Agreement, is owned or controlled by any of Respondents, such Respondents shall, commencing on the Effective Date, provide U.S. EPA, the State, and their representatives, including contractors, with access at all reasonable times to the Site, or such other property, for the purpose of conducting any activity related to this Settlement Agreement.

55. Where any action under this Settlement Agreement is to be performed in areas owned by or in possession of someone other than Respondents, Respondents shall use their best efforts to obtain all necessary access agreements within 15 days after the Effective Date, or as otherwise specified in writing by the U.S. EPA Project Coordinator. Respondents shall immediately notify U.S. EPA if after using their best efforts they are unable to obtain such agreements. For purposes of this Paragraph, "best efforts" includes the payment of reasonable sums of money in consideration of access. Respondents shall describe in writing their efforts to obtain access. U.S. EPA may then assist Respondents in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as U.S. EPA deems appropriate. Respondents shall reimburse U.S. EPA for all costs and attorney's fees incurred by the United States in obtaining such access, in accordance with the procedures in Section XVIII (Payment of Response Costs).

56. Notwithstanding any provision of this Settlement Agreement, U.S. EPA retains all of its access authorities and rights, as well as all of its rights to require land/water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA, and any other applicable statutes or regulations.

57. If Respondents cannot obtain access agreements, U.S. EPA may obtain access for Respondents, perform those tasks or activities with U.S. EPA contractors, or terminate the Settlement Agreement. In the event that U.S. EPA performs those tasks or activities with U.S. EPA contractors and does not terminate the Settlement Agreement, Respondents shall perform all other activities not requiring access to that property, and shall reimburse U.S. EPA for all costs incurred in performing such activities. Respondents shall integrate the results of any such tasks undertaken by U.S. EPA into its reports and deliverables.

XIII. COMPLIANCE WITH OTHER LAWS

58. Respondents shall comply with all applicable local, state and federal laws and regulations when performing the RI/FS. No local, state, or federal permit shall be required for any portion of any action conducted entirely on-site, including studies, if the action is selected and carried out in compliance with Section 121 of CERCLA, 42 U.S.C. § 9621. Where any portion of the Work is to be conducted off-site and requires a federal or state permit or approval, Respondents shall submit timely and complete applications and take all other actions necessary to obtain and to comply with all such permits or approvals. This Settlement Agreement is not,

and shall not be construed to be, a permit issued pursuant to any federal or state statute or regulation.

XIV. RETENTION OF RECORDS

59. During the pendency of this Settlement Agreement and for a minimum of 10 years after commencement of construction of any remedial action, each Respondent shall preserve and retain all non-identical copies of records and documents (including records or documents in electronic form) now in its possession or control or which come into its possession or control that relate in any manner to the performance of the Work or the liability of any person under CERCLA with respect to the Site, regardless of any corporate retention policy to the contrary. Until 10 years after commencement of construction of any remedial action, Respondents shall also instruct their contractors and agents to preserve all documents, records, and information of whatever kind, nature or description relating to performance of the Work.

60. At the conclusion of this document retention period, Respondents shall notify U.S. EPA at least 90 days prior to the destruction of any such records or documents, and, upon request by U.S. EPA, Respondents shall deliver any such records or documents to U.S. EPA. Respondents may assert that certain documents, records and other information are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Respondents assert such a privilege, they shall provide U.S. EPA with the following: 1) the title of the document, record, or information; 2) the date of the document, record, or information; 3) the name and title of the author of the document, record, or information; 4) the name and title of each addressee and recipient; 5) a description of the subject of the document, record, or information; and 6) the privilege asserted by Respondents. However, no documents, reports or other information created or generated pursuant to the requirements of this Settlement Agreement shall be withheld on the grounds that they are privileged.

61. Each Respondent hereby certifies individually that to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, documents or other information (other than identical copies) relating to its potential liability regarding the Site since notification of potential liability by U.S. EPA or the filing of suit against it regarding the Site and that it has fully complied with any and all U.S. EPA requests for information pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XV. DISPUTE RESOLUTION

62. Unless otherwise expressly provided for in this Settlement Agreement, the dispute resolution procedures of this Section shall be the exclusive mechanism for resolving disputes arising under this Settlement Agreement. The Parties shall attempt to resolve any disagreements concerning this Settlement Agreement expeditiously and informally.

63. If Respondents object to any U.S. EPA action taken pursuant to this Settlement Agreement, including billings for Future Response Costs, they shall notify U.S. EPA in writing of their objection(s) within 10 days of such action, unless the objection(s) has/have been resolved informally. U.S. EPA and Respondents shall have 20 days from U.S. EPA's receipt of Respondents' written objection(s) to resolve the dispute (the "Negotiation Period"). The Negotiation Period may be extended at the sole discretion of U.S. EPA. Such extension may be granted verbally but must be confirmed in writing to be effective.

64. Any agreement reached by the Parties pursuant to this Section shall be in writing and shall, upon signature by the Parties, be incorporated into and become an enforceable part of this Settlement Agreement. If the Parties are unable to reach an agreement within the Negotiation Period, an U.S. EPA management official at the Superfund Branch Chief level or higher will issue a written decision. U.S. EPA's decision shall be incorporated into and become an enforceable part of this Settlement Agreement. Respondents' obligations under this Settlement Agreement shall not be tolled by submission of any objection for dispute resolution under this Section. Following resolution of the dispute, as provided by this Section, Respondents shall fulfill the requirement that was the subject of the dispute in accordance with the agreement reached or with U.S. EPA's decision, whichever occurs. Respondents shall proceed in accordance with U.S. EPA's final decision regarding the matter in dispute, regardless of whether Respondents agree with the decision. If Respondents do not agree to perform or do not actually perform the Work in accordance with U.S. EPA's final decision, U.S. EPA reserves the right in its sole discretion to conduct the Work itself, to seek reimbursement from Respondents, to seek enforcement of the decision, to seek stipulated penalties, and/or to seek any other appropriate relief.

XVI. STIPULATED PENALTIES

65. Respondents shall be liable to U.S. EPA for stipulated penalties in the amounts set forth in Paragraphs 66 and 67 for failure to comply with any of the requirements of this Settlement Agreement specified below unless excused under Section XVII (Force Majeure). "Compliance" by Respondents shall include completion of the Work under this Settlement Agreement or any activities contemplated under any of the RI/FS Planning Documents, work plans or other plan approved under this Settlement Agreement identified below in accordance with all applicable requirements of law, this Settlement Agreement, the SOW, and any plans or other documents approved by U.S. EPA pursuant to this Settlement Agreement and within the specified time schedules established by and approved under this Settlement Agreement.

66. Stipulated Penalty Amounts - Work.

a. The following stipulated penalties shall accrue per day for any noncompliance identified in Subparagraph 66(b):

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000.00	1 st through 21 st day
\$2000.00	22 ^d through 30 th day
\$3000.00	31 st day and beyond

b. Compliance Milestones:

- Timely notification to U.S. EPA in writing of names, titles and qualification of the personnel, including contractors, subcontractors, consultants, and laboratories to be used in carrying out the Work [Paragraph 29(a) and (b)].
- Submission to U.S. EPA of Respondent's designated Project Coordinator's name, address, telephone number and qualifications [Paragraph 30].
- Conduct site characterization activities as described in the SOW and RI/FS Work Plan/Field Sampling Plan [Paragraph 35].
- Prepare Technical Assistance Plan [Paragraph 36].
- Submission of Memorandum documenting need for additional data collection activities identified by Respondents [Paragraph 37(a)].
- Provide written commitment of willingness to perform additional Work identified by U.S. EPA [Paragraph 37(d)].
- Provide copy of written notification to U.S. EPA of off-site shipment of Waste Material from the Site to an out-of-state waste management facility [Paragraph 38].
- Monthly Progress Reports [Paragraph 40].
- Written report due in the event of any release of a hazardous substance from the Site [Paragraph 40(b)].
- Report objecting to RI/FS data [Paragraph 53].
- Provide written description of failed efforts to obtain access [Paragraph 55].
- Payment of Future Response Costs [Paragraph 79].
- Establish escrow account in the event of any dispute over billing.

67. Stipulated Penalty Amounts - RI/FS Planning Documents, Reports and Technical Memoranda

a. The following stipulated penalties shall accrue per violation per day for failure to submit timely or adequate plans, reports, technical memoranda or other written documents required by Tasks 1 through 7 of the SOW in accordance with the Schedule in the SOW:

<u>Penalty Per Violation Per Day</u>	<u>Period of Noncompliance</u>
\$1,000	1 st through 21 st day
\$2,000	22 ^d through 30 th day
\$3,000	31 st day and beyond

68. Respondents shall be liable for stipulated penalties in the amount of \$500.00 per day for the first week or part thereof and \$1,000.00 per day for each week or part thereof thereafter for failure to meet any other obligation under this Settlement Agreement including the SOW.

69. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: (1) with respect to a deficient submission under Section X (U.S. EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after U.S. EPA's receipt of such submission until the date that U.S. EPA notifies Respondents of any deficiency; and (2) with respect to a decision by the U.S. EPA Management Official at the Superfund Branch Chief level or higher, under Paragraph 64 of Section XV (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the U.S. EPA management official issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

70. Following U.S. EPA's determination that Respondents have failed to comply with a requirement of this Settlement Agreement, U.S. EPA may give Respondents written notification of the same and describe the noncompliance. U.S. EPA may send Respondents a written demand for the payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether U.S. EPA has notified Respondents of a violation.

71. All penalties accruing under this Section shall be due and payable to U.S. EPA within 30 days of Respondents' receipt from U.S. EPA of a demand for payment of the penalties, unless Respondents invoke the dispute resolution procedures in accordance with Section XV (Dispute Resolution). All payments to U.S. EPA under this Section shall be paid by certified or

cashier's check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to U.S. EPA, Region 5, P. O. Box 371531, Pittsburgh, PA 15251-7531, shall indicate that the payment is for stipulated penalties, and shall reference the U.S. EPA Region and Site/Spill ID Number B52B, the U.S. EPA Docket Number V-W-'06-C-852, and the name and address of the party(ies) making payment. Copies of check(s) paid pursuant to this Section, and any accompanying transmittal letter(s) shall be sent to:

Thomas C. Nash
Site Attorney
Office of Regional Counsel
Mail Code C-14J
77 West Jackson
Chicago, IL 60604-3590

Karen Cibulskis
Remedial Project Manager
Superfund Division
Mail Code SR-6J
77 West Jackson
Chicago, IL 60604-3590

72. The payment of penalties shall not alter in any way Respondents' obligation to complete performance of the Work required under this Settlement Agreement.

73. Penalties shall continue to accrue as provided in Paragraph 69 during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of U.S. EPA's decision.

74. If Respondents fail to pay stipulated penalties when due, U.S. EPA may institute proceedings to collect the penalties, as well as Interest. Respondents shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 71.

75. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of U.S. EPA to seek any other remedies or sanctions available by virtue of Respondents' violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Section 122(l) of CERCLA, 42 U.S.C. § 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that U.S. EPA shall not seek civil penalties pursuant to Section 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of willful violation of this Settlement Agreement or in the event that U.S. EPA assumes performance of a portion or all of the Work pursuant to Section XX (Reservation of Rights by U.S. EPA), Paragraph 86. Notwithstanding any other provision of this Section, U.S. EPA may, in its sole and unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XVII. FORCE MAJEURE

76. Respondents agree to perform all requirements of this Settlement Agreement within the time limits established under this Settlement Agreement, unless the performance is delayed by a *force majeure*. For purposes of this Settlement Agreement, *force majeure* is defined as any event arising from causes beyond the control of Respondents or of any entity controlled by Respondents, including but not limited to their contractors and subcontractors, which delays or prevents performance of any obligation under this Settlement Agreement despite Respondents' best efforts to fulfill the obligation. *Force majeure* does not include financial inability to complete the Work or increased cost of performance.

77. If any event occurs or has occurred that may delay the performance of any obligation under this Settlement Agreement, whether or not caused by a *force majeure* event, Respondents shall notify U.S. EPA orally within twenty four hours of when Respondents first knew that the event might cause a delay. Within five (5) days thereafter, Respondents shall provide to U.S. EPA in writing an explanation and description of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondents' rationale for attributing such delay to a *force majeure* event if they intend to assert such a claim; and a statement as to whether, in the opinion of Respondents, such event may cause or contribute to an endangerment to public health, welfare or the environment. Failure to comply with the above requirements shall preclude Respondents from asserting any claim of *force majeure* for that event for the period of time of such failure to comply and for any additional delay caused by such failure.

78. If U.S. EPA agrees that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of the obligations under this Settlement Agreement that are affected by the *force majeure* event will be extended by U.S. EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation. If U.S. EPA does not agree that the delay or anticipated delay has been or will be caused by a *force majeure* event, U.S. EPA will notify Respondents in writing of its decision. If U.S. EPA agrees that the delay is attributable to a *force majeure* event, U.S. EPA will notify Respondents in writing of the length of the extension, if any, for performance of the obligations affected by the *force majeure* event.

XVIII. PAYMENT OF RESPONSE COSTS

79. Payments for Future Response Costs.

a. Respondents shall pay U.S. EPA all Future Response Costs not inconsistent with the NCP. On a periodic basis, U.S. EPA will send Respondents a bill requiring payment that includes Region 5's Itemized Cost Summary, which includes direct and indirect costs

incurred by U.S. EPA and its contractors. If the U.S. Department of Justice has incurred costs for this Site, the bill will also include a DOJ-prepared cost summary, which would reflect costs incurred by DOJ and its contractors, if any. Respondents shall make all payments within 30 days of receipt of each bill requiring payment, except as otherwise provided in this Settlement Agreement. Respondents shall make all payments required by this Paragraph by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party(ies) making payment and U.S. EPA Site/Spill ID number B52B. Respondents shall send the check(s) to:

U.S. Environmental Protection Agency, Region 5
P. O. Box 371531,
Pittsburgh, PA 15251-7531

Payment made pursuant to this paragraph may also be made to U.S. EPA by Electronics Funds Transfer ("EFT") in accordance with current EFT procedures to be provided to Respondents by U.S. EPA Region 5, and shall be accompanied by a statement identifying the name and address of the party(ies) making payment, the Site name, the U.S. EPA Region and Site/Spill ID Number B52B, and the U.S. EPA docket number for this action. Region 5 EFT procedures are: make payment to:

Federal Reserve Bank of New York
ABA No. 021030004
Account No. 68010727
33 Liberty Street
New York, NY 10045

Field Tag 4200 of the Fedwire message is: "D 68010727 Environmental Protection Agency."

Respondents shall: 1) complete Respondents' required bank form; 2) include Federal Reserve Bank of New York ABA # 021030004 on the bank form; 3) include the U.S. EPA Account # 68010727 on the form; and 4) include a statement identifying the name and address of the party(ies) making payment, the Site name, and the U.S. EPA Region and Site/Spill ID Number B52B.

b. At the time of payment, Respondents shall send notice that payment has been made to:

Thomas C. Nash
Site Attorney
Office of Regional Counsel
Mail Code C-14J
77 West Jackson
Chicago, IL 60604-3590

Karen Cibulskis
Remedial Project Manager
Superfund Division
Mail Code SR-6J
77 West Jackson
Chicago, IL 60604-3590

c. The total amount to be paid by Respondents pursuant to Subparagraph 79.a. shall be deposited in the South Dayton Dump and Landfill Site Special Account within the U.S. EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by U.S. EPA to the U.S. EPA Hazardous Substance Superfund.

80. If Respondents do not pay Future Response Costs within 30 days of Respondents' receipt of a bill, Respondents shall pay Interest on the unpaid balance of Future Response Costs. The Interest on unpaid Future Response Costs shall begin to accrue on the date of the bill and shall continue to accrue until the date of payment. If U.S. EPA receives a partial payment, Interest shall accrue on any unpaid balance. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondents' failure to make timely payments under this Section, including but not limited to, payments of stipulated penalties pursuant to Section XVI. Respondents shall make all payments required by this Paragraph in the manner described in Paragraph 79.

81. Respondents may contest payment of any Future Response Costs under Paragraph 79 if they determine that U.S. EPA has made an accounting error or if they believe U.S. EPA incurred excess costs as a direct result of an U.S. EPA action that was inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the bill and must be sent to the U.S. EPA Project Coordinator. Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Respondents shall within the 30 day period pay all uncontested Future Response Costs to U.S. EPA in the manner described in Paragraph 79. Simultaneously, Respondents shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of Ohio and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Respondents shall send to the U.S. EPA Project Coordinator a copy of the transmittal letter and check paying the uncontested Future Response Costs, and a copy of the correspondence that establishes and funds the escrow account, including, but not limited to, information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Respondents shall initiate the Dispute Resolution procedures in Section XV (Dispute Resolution). If U.S. EPA prevails in the dispute, within 5 days of the resolution of the dispute, Respondents shall pay the sums due (with accrued interest) to U.S. EPA in the manner described in Paragraph 79. If Respondents prevail concerning any aspect of the contested costs, Respondents shall pay that portion of the costs (plus associated accrued interest) for which they did not prevail to U.S. EPA in the manner described in Paragraph 79. Respondents shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section XV (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Respondents' obligation to reimburse U.S. EPA for its Future Response Costs.

XIX. COVENANT NOT TO SUE BY U.S. EPA

82. In consideration of the actions that will be performed and the payments that will be made by Respondents under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, U.S. EPA covenants not to sue or to take administrative action against Respondents pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Future Response Costs. This covenant not to sue shall take effect upon the Effective Date and is conditioned upon the complete and satisfactory performance by Respondents of all obligations under this Settlement Agreement, including, but not limited to, payment of Future Response Costs pursuant to Section XVIII. This covenant not to sue extends only to Respondents and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY U.S. EPA

83. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of U.S. EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent U.S. EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondents in the future to perform additional activities pursuant to CERCLA or any other applicable law.

84. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. U.S. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondents with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondents to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definitions of Future Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and

g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site.

h. liability for costs incurred if U.S. EPA assumes the performance of the Work pursuant to paragraph 85.

85. Work Takeover. In the event U.S. EPA determines that Respondents have ceased implementation of any portion of the Work, are deficient or late in their performance of the Work, or are implementing the Work in a manner which may cause an endangerment to human health or the environment, U.S. EPA may assume the performance of all or any portion of the Work as U.S. EPA determines necessary. Respondents may invoke the procedures set forth in Section XV (Dispute Resolution) to dispute U.S. EPA's determination that takeover of the Work is warranted under this Paragraph. Notwithstanding any other provision of this Settlement Agreement, U.S. EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENTS

86. Respondents covenant not to sue and agree not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Future Response Costs, or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of the Work or arising out of the response actions for which the Future Response Costs have or will be incurred, including any claim under the United States Constitution, the Ohio Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Work or payment of Future Response Costs.

87. Except as provided in Paragraph 91, these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 84 (b), (c), and (e) - (g), but only to the extent that Respondents' claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

88. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

89. **AGREEMENT NOT TO CHALLENGE LISTING.** Respondents agree not to seek judicial review of a decision to list the Site on the NPL at any time after the Effective Date of this Settlement Agreement based on a claim that changed site conditions that resulted from the performance of the Work in any way affected the basis for listing the Site.

90. **WAIVER OF CLAIMS AGAINST DE MICROMIS PARTIES.** Respondents agree not to assert any claims and to waive all claims or causes of action that they may have for all matters relating to the Site, including for contribution, against any person where the person's liability to Respondents with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if all or part of the disposal, treatment, or transport occurred before April 1, 2001, and the total amount of material containing hazardous substances contributed by such person to the Site was less than 110 gallons of liquid materials or 200 pounds of solid materials.

91. The waiver in Paragraph 90 shall not apply with respect to any defense, claim, or cause of action that a Respondent may have against any person meeting the above criteria if such person asserts a claim or cause of action relating to the Site against such Respondent. This waiver also shall not apply to any claim or cause of action against any person meeting the above criteria if U.S. EPA determines:

a. that such person has failed to comply with any U.S. EPA requests for information or administrative subpoenas issued pursuant to Section 104(e) or 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) or 9622(e), or Section 3007 of the Solid Waste Disposal Act (also known as the Resource Conservation and Recovery Act or "RCRA"), 42 U.S.C. § 6972, or has impeded or is impeding, through action or inaction, the performance of a response action or natural resource restoration with respect to the Site, or has been convicted of a criminal violation for the conduct to which this waiver would apply and that conviction has not been vitiated on appeal or otherwise; or

b. that the materials containing hazardous substances contributed to the Site by such person have contributed significantly, or could contribute significantly, either individually or in the aggregate, to the cost of response action or natural resource restoration at the Site.]

92. **NATURAL RESOURCE DAMAGES.** For the purposes of Section 113(g)(1) of CERCLA, the parties agree that, upon issuance of this Settlement Agreement, remedial action under CERCLA shall be deemed to be scheduled and an action for damages (as defined in 42 U.S.C. § 9601(6)) must be commenced within 3 years after the completion of the remedial action.

XXII. OTHER CLAIMS

93. By issuance of this Settlement Agreement, the United States and U.S. EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondents.

94. Except as expressly provided in Section XXI, Paragraph 90, (Non-Exempt De Micromis Waivers) and Section XIX (Covenant Not to Sue by U.S. EPA), nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondents or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

95. No action or decision by U.S. EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review.

XXIII. CONTRIBUTION

96. a. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondents are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for “matters addressed” in this Settlement Agreement. The “matters addressed” in this Settlement Agreement are the Work, and Future Response Costs.

b. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42. U.S.C. § 9113(f)(3)(B), pursuant to which the Respondents have, as of the Effective Date, resolved their liability to the United States for the Work, and Future Response Costs.

c. Except as provided in Section XXI , Paragraph 90 of this Settlement Agreement (Non-Exempt De Micromis Waivers),”nothing in this Settlement Agreement precludes the United States or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any person not a party to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Section 113(f)(2)and (3), 42 U.S.C. § 9613(f)(2) and (3), to pursue any such persons to obtain additional response costs or response action, and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2).

XXIV. INDEMNIFICATION

97. Respondents shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondents agree to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondents, their officers, directors, employees, agents, contractors, subcontractors and any persons acting on their behalf or under their control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondents in carrying out activities pursuant to this Settlement Agreement. Neither Respondents nor any such contractor shall be considered an agent of the United States.

98. The United States shall give Respondents notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondents prior to settling such claim.

99. Respondents waive all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site. In addition, Respondents shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between any one or more of Respondents and any person for performance of Work on or relating to the Site.

XXV. INSURANCE

100. At least 21 days prior to commencing any On-Site Work under this Settlement Agreement, Respondents shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of five million dollars, combined single limit, naming the United States as an additional insured. Within the same period, Respondents shall provide U.S. EPA with certificates of such insurance and a copy of each insurance policy. Respondents shall submit such certificates and copies of policies each year on the anniversary of the Effective Date. In addition, for the duration of the Settlement Agreement, Respondents shall satisfy, or shall ensure that their contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondents in furtherance of this Settlement Agreement. If Respondents demonstrate by evidence satisfactory

to U.S. EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondents need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. FINANCIAL ASSURANCE

101. Within 30 days of the Effective Date, Respondents shall establish and maintain financial security for the benefit of U.S. EPA in the amount of \$1,500,000 in one or more of the following forms, in order to secure the full and final completion of Work by Respondents:

- a. a surety bond unconditionally guaranteeing payment and/or performance of the Work;
- b. one or more irrevocable letters of credit, payable to or at the direction of U.S. EPA, issued by financial institution(s) acceptable in all respects to U.S. EPA equaling the total estimated cost of the Work;
- c. a trust fund administered by a trustee acceptable in all respects to U.S. EPA;
- d. a policy of insurance issued by an insurance carrier acceptable in all respects to U.S. EPA, which ensures the payment and/or performance of the Work;
- e. a corporate guarantee to perform the Work provided by one or more parent corporations or subsidiaries of Respondents, or by one or more unrelated corporations that have a substantial business relationship with at least one of Respondents; including a demonstration that any such company satisfied the financial test requirements of 40 C.F.R. § 264.143(f);
- f. a corporate guarantee to perform the Work by one or more of Respondents, including a demonstration that any such Respondent satisfies the requirements of 40 C.F.R. § 143(f); and/or
- g. any other financial mechanism acceptable to and approved by U.S. EPA

102. Any and all financial assurance instruments provided pursuant to this Section shall be in form and substance satisfactory to U.S. EPA, determined in U.S. EPA's sole discretion. In the event that U.S. EPA determines at any time that the financial assurances provided pursuant to this Section (including, without limitation, the instrument(s) evidencing such assurances) are inadequate, Respondents shall, within 30 days of receipt of notice of U.S. EPA's determination, obtain and present to U.S. EPA for approval one of the other forms of financial assurance listed in Paragraph 102, above. In addition, if at any time U.S. EPA notifies Respondents that the anticipated cost of completing the Work has increased, then, within 30 days of such notification,

Respondents shall obtain and present to U.S. EPA for approval a revised form of financial assurance (otherwise acceptable under this Section) that reflects such cost increase. Respondents' inability to demonstrate financial ability to complete the Work shall in no way excuse performance of any activities required under this Settlement Agreement.

103. If Respondents seek to ensure completion of the Work through a guarantee pursuant to Subparagraph 101.e. or 101.f. of this Settlement Agreement, Respondents shall (i) demonstrate to U.S. EPA's satisfaction that the guarantor satisfies the requirements of 40 C.F.R. § 264.143(f); and (ii) resubmit sworn statements conveying the information required by 40 C.F.R. § 264.143(f) annually, on the anniversary of the Effective Date, to U.S. EPA. For the purposes of this Settlement Agreement, wherever 40 C.F.R. § 264.143(f) references "sum of current closure and post-closure costs estimates and the current plugging and abandonment costs estimates," the current cost estimate of \$1,500,000 for the Work at the Site shall be used in relevant financial test calculations.

104. If, after the Effective Date, Respondents can show that the estimated cost to complete the remaining Work had diminished below the amount set forth in Paragraph 102 of this Section, Respondents may, on any anniversary date of the Effective Date, or at any other time agreed to by the Parties, reduce the amount of the financial security provided under this Section to the estimated cost of the remaining Work to be performed. Respondents shall submit a proposal for such reduction to U.S. EPA, in accordance with the requirements of this Section, and may reduce the amount of the security after receiving written approval from U.S. EPA. In the event of a dispute, Respondents may seek dispute resolution pursuant to Section XV (Dispute Resolution) and may reduce the amount of security in accordance with U.S. EPA's written decision resolving the dispute.

106. Respondents may change the form of financial assurance provided under this Section at any time, upon notice to and prior written approval by U.S. EPA, provided that U.S. EPA determines that the new form of assurance meets the requirements of this Section. In the event of a dispute, Respondents may change the form of the financial assurance only in accordance with the written decision resolving the dispute.

XXVII. SEVERABILITY/INTEGRATION/APPENDICES

106. If a court issues an order that invalidates any provision of this Settlement Agreement or finds that Respondents have sufficient cause not to comply with one or more provisions of this Settlement Agreement, Respondents shall remain bound to comply with all provisions of this Settlement Agreement not invalidated or determined to be subject to a sufficient cause defense by the court's order.

107. This Settlement Agreement including its appendices, and any deliverables, technical memoranda, specifications, schedules, documents, plans, reports (other than progress reports), etc. that will be developed pursuant to this Settlement Agreement and become incorporated into

and enforceable under this Settlement Agreement constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement:

“Appendix A” is the SOW.

“Appendix B” consists of two documents depicting the Site, an aerial photograph and a map produced by the Montgomery County Appraiser’s Office.

“Appendix C” is the list of Settling Parties (“Respondents”) who have signed this Settlement Agreement and agreed to be bound by the terms of this Administrative Order on Consent (Settlement Agreement).

XXVIII. ADMINISTRATIVE RECORD

108. U.S. EPA will determine the contents of the administrative record file for selection of the remedial action. Respondents shall submit to U.S. EPA documents developed during the course of the RI/FS upon which selection of the response action may be based. Upon request of U.S. EPA, Respondents shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Upon request of U.S. EPA, Respondents shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondents and state, local or other federal authorities concerning selection of the response action. U.S. EPA shall establish a community information repository at or near the Site, to house one copy of the administrative record.

XXIX. EFFECTIVE DATE AND SUBSEQUENT MODIFICATION

109. This Settlement Agreement shall be effective three days after the Settlement Agreement is signed by the Director of the Superfund Division or his/her delegate.

110. This Settlement Agreement may be amended by mutual agreement of U.S. EPA and Respondents. Amendments shall be in writing and shall be effective when signed by U.S. EPA. U.S. EPA Project Coordinators do not have the authority to sign amendments to the Settlement Agreement.

111. No informal advice, guidance, suggestion, or comment by the U.S. EPA Project Coordinator or other U.S. EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondents shall relieve Respondents of their obligation to

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

112. When U.S. EPA determines, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to, payment of Future Response Costs, provision of Access, and record retention, U.S. EPA will provide written notice to Respondents. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RI/FS Planning Documents or other work plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved RI/FS Planning Documents or other approved work plan and shall submit the required deliverable(s) in accordance with the U.S. EPA notice. Failure by Respondents to implement the approved modified RI/FS Planning Documents or other work plan shall be a violation of this Settlement Agreement.

The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent in the matter of the South Dayton Dump and Landfill Site.

Agreed this 2ND day of AUGUST, 2006
 For Respondent KATHRYN A. BOESCH
 Signature: Kathryn A. Boesch
 Name: C/O TIMOTHY D. HOFFMAN
 Title: COOLIDGE WALL
 Address 33 W 1ST ST
DAYTON OHIO 45402
(937) 449-5540

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

112. When U.S. EPA determines, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to, payment of Future Response Costs, provision of Access, and record retention, U.S. EPA will provide written notice to Respondents. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RI/FS Planning Documents or other work plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved RI/FS Planning Documents or other approved work plan and shall submit the required deliverable(s) in accordance with the U.S. EPA notice. Failure by Respondents to implement the approved modified RI/FS Planning Documents or other work plan shall be a violation of this Settlement Agreement.

The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent, in the matter of the South Dayton Dump and Landfill Site.

Agreed this 1st day of August, 2006.

For Respondent GENERAL MOTORS CORPORATION

Signature: James P. Walle

Name: JAMES P. WALLE
Attorney At Law P31198

Title: _____

Address: 300 RENAISSANCE CENTER
M/C 482-024-024
DETROIT, MI 48243

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

112. When U.S. EPA determines, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to, payment of Future Response Costs, provision of Access, and record retention, U.S. EPA will provide written notice to Respondents. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RI/FS Planning Documents or other work plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved RI/FS Planning Documents or other approved work plan and shall submit the required deliverable(s) in accordance with the U.S. EPA notice. Failure by Respondents to implement the approved modified RI/FS Planning Documents or other work plan shall be a violation of this Settlement Agreement.

The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent in the matter of the South Dayton Dump and Landfill Site.

Agreed this 2ND day of AUGUST, 2006
 For Respondent MARGARET C. GRILLOT
 Signature: Margaret C. Grillot
 Name: C/O TIMOTHY D. HOFFMAN
 Title: COOLIDGE WALL
 Address: 33 W 1ST ST
DAYTON, OHIO 45402
(937) 449-5540

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

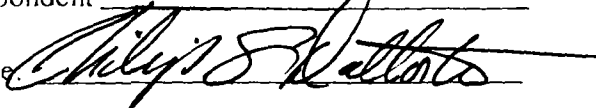
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The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent in the matter of the South Dayton Dump and Landfill Site.

Agreed this 1 day of August, 2006

For Respondent Hobart Corporation

Signature: 

Name: Philip S. Dallosto

Title: Associate General Counsel

Address: Illinois Tool Works Inc.

3600 West Lake Avenue
Glenview, IL 60026

NOTE: Hobart Corporation is a wholly owned subsidiary of Illinois Tool Works Inc.

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

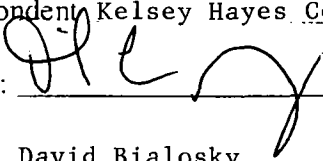
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The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent in the matter of the South Dayton Dump and Landfill Site.

Agreed this 3 day of August, 2006.

For Respondent Kelsey Hayes Company

Signature: 

Name: David Bialosky

Title: Vice President & General Counsel

Address: 12001 Tech Center Drive, Livonia, MI 48154

obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXX. NOTICE OF COMPLETION OF WORK

112. When U.S. EPA determines, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, including but not limited to, payment of Future Response Costs, provision of Access, and record retention, U.S. EPA will provide written notice to Respondents. If U.S. EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, U.S. EPA will notify Respondents, provide a list of the deficiencies, and require that Respondents modify the RI/FS Planning Documents or other work plan if appropriate in order to correct such deficiencies. Respondents shall implement the modified and approved RI/FS Planning Documents or other approved work plan and shall submit the required deliverable(s) in accordance with the U.S. EPA notice. Failure by Respondents to implement the approved modified RI/FS Planning Documents or other work plan shall be a violation of this Settlement Agreement.

The Undersigned Party enters into this Administrative Settlement Agreement and Order on Consent in the matter of the South Dayton Dump and Landfill Site.

Agreed this 12 day of August, 2006.

For Respondent NCL Corporation

Signature: [Signature]

Name: Erin R. Oene

Title: Chief Litigation Counsel

Address: 700 S. Patterson Blvd. Dayton, OH 45479

It is so ORDERED AND AGREED this 10th day of August, 2006.

BY: [Signature] DATE: 8/10/2006

for
Richard C. Karl, Director
Superfund Division
U.S. Environmental Protection Agency
Region 5

EFFECTIVE DATE: 8/15/2006

Appendix A - Statement of Work

**STATEMENT OF WORK
FOR A REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
AT THE SOUTH DAYTON DUMP AND LANDFILL SITE
MORaine, OHIO**

PURPOSE:

This Statement of Work (SOW) sets forth the requirements for conducting a Remedial Investigation and Feasibility Study (RI/FS) at the 80-acre South Dayton Dump and Landfill Site located at 1975 Dryden Road in Moraine, Ohio (Figure 1). Based on a historical air photo analysis, handwritten notes on an undated tax map from the Montgomery County Combined Health Department, drum removal activities and a title search, the South Dayton Dump and Landfill Site property currently includes: 1) Lot 5054 (Valley Asphalt); 2) Lots 5171, 5172, 5173, 5174, 5175, 5176, 5177 and 5178 (Boesch and Grillot Plat); 3) Lot 3274 (Miami Conservancy District); 3) Lots 3753 and 4423 (Jim City Salvage); and 4) Lots 4610 and 3252 (Ronald Barnett) (Figure 2). The South Dayton Dump and Landfill Site also includes all off-property areas where hazardous substances or contaminants from the property or from past operations at the property have or may have come to be located ("the Site").

The RI shall evaluate the nature and extent of hazardous substances or contaminants at the Site. The RI shall also assess the risk which these hazardous substances or contaminants present for human health and the environment. The FS Report shall evaluate alternatives for addressing the impact to human health and the environment from hazardous substances or contaminants at the Site.

The Respondents have requested, and U.S. EPA agrees that the Respondents shall use a Presumptive Remedy approach consistent with U.S. EPA guidance including *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites* (EPA/540/P-91/001, February 1991) (Municipal Landfill Guidance) and *Presumptive Remedy for CERCLA Municipal Landfill Sites*, (EPA/540/F-93/035, September 1993) (Presumptive Remedy Guidance) to address the potential risk from direct contact with the landfill contents in the central portion of the Site (Figure 3 - Presumptive Remedy Area). Lead and copper are present in surface soil/material in this area (surface soil sample SS-10 collected 0-4" below ground surface) at concentrations as high as 12,100 mg/Kg for lead and 191,000 mg/Kg for copper (OEPA Site Team Evaluation Prioritization Report, December 24, 1996). A streamlined risk evaluation based on U.S. EPA Region 9 Preliminary Remediation Goals for industrial exposure (ingestion, inhalation and direct contact) indicates that these chemicals pose an unacceptable non-cancer hazard index of 15 for lead and 4.65 for copper. These hazard indices exceed U.S. EPA's acceptable non-cancer hazard index of 1 and, consistent with the Presumptive Remedy Guidance, indicate that remedial action is clearly warranted in this area. Consistent with the guidance, the Respondents and U.S. EPA agree that the presumptive remedy to address the direct contact risks in this area shall be containment (i.e., a landfill cap).

The Respondents shall conduct a conventional (i.e., not streamlined) RI/FS, risk assessment and ecological assessment consistent with the requirements of this SOW for all Site areas and/or media not addressed by the Presumptive Remedy approach above, and in all Site areas and/or media where the Respondents have not clearly indicated that there is a basis for remedial action and that a Presumptive Remedy approach is appropriate. The Respondents may, at any time, propose to expand the area identified on Figure 3-1 based on the data collected during the RI. Unless otherwise agreed to by U.S. EPA, a conventional RI/FS, baseline human health risk assessment and ecological assessment shall be conducted for:

- Landfill material, surface and subsurface soil and hot spots outside the Presumptive Remedy Area. The Respondents shall also investigate potential hot spots within the Presumptive Remedy Area as required by U.S. EPA based on the data collected during the RI or as needed to meet the objectives of this SOW. U.S. EPA may also require the Respondents to characterize the landfill materials and/or surface and subsurface soil within the Presumptive Remedy Area as a component of other Site investigations (i.e., groundwater, leachate, landfill and soil gas, surface water and sediment, property re-use, and closure requirements).
- Groundwater within and outside the Presumptive Remedy Area
- Leachate within and outside the Presumptive Remedy Area
- Landfill gas and soil vapor within and outside the Presumptive Remedy Area
- Surface water and sediment within and outside the Presumptive Remedy Area
- Air outside the Presumptive Remedy Area

The RI/FS shall comply with all requirements and guidance for RI/FS studies and reports, and shall also comply with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Final Rule (40 CFR Part 300). At a minimum, the Respondents shall prepare and complete the RI and FS Reports consistent with the *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (EPA/540/G-89/004, October 1988) (RI/FS Guidance), the Municipal Landfill Guidance, the Presumptive Remedy Guidance, and any other relevant guidance that the United States Environmental Protection Agency (U.S. EPA) uses in conducting or submitting deliverables for a RI/FS, as well as any additional requirements in the Administrative Settlement and Agreement on Consent (ASAOC). The RI/FS Guidance describes the report format and the required report content. Numerical references to the appropriate sections of the RI/FS Guidance follow the section headings throughout this SOW. U.S. EPA will provide any guidance, evolving or published during the conduct of the RI/FS, to the Respondents in a reasonable time frame prior to the due date for the submittal of applicable interim or final deliverables identified in this SOW. A partial list of guidance is included at the end of this SOW.

The Respondents shall submit all documents or deliverables required as part of this SOW to U.S. EPA, with a copy to the Ohio Environmental Protection Agency (Ohio EPA), for review and approval by U.S. EPA after consultation with the Ohio EPA.

Unless otherwise agreed to by U.S. EPA, the Respondents shall submit 4 paper copies of each deliverable to U.S. EPA and one paper copy of each deliverable to U.S. EPA's oversight contractor. Unless otherwise agreed to by U.S. EPA, the Respondents shall also submit electronic copies of each deliverable to U.S. EPA on compact disk in file formats compatible with MS Word and MS Excel, and one electronic copy of each deliverable in .pdf format. Files submitted in .pdf format shall not exceed 10MB in size.

The Respondents shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RI/FS at the Site, except as otherwise specified herein.

At the completion of the RI/FS, U.S. EPA will be responsible for selecting a Site remedy, and will document the selected remedy in a Record of Decision (ROD). The remedial action selected by U.S. EPA will meet the cleanup standards specified in CERCLA Section 121. That is, the selected remedial action will protect human health and the environment; will comply with, or include a waiver of, applicable or relevant and appropriate requirements of other laws; will be cost-effective; will use permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The final RI/FS Reports, as adopted by U.S. EPA, shall, with the administrative record, form the basis for the selection of the Site remedy and shall provide the information necessary to support the development of the ROD.

As specified in CERCLA Section 104(a)(1), as amended by SARA, U.S. EPA and Ohio EPA will provide oversight of the Respondents' activities throughout the RI/FS, including all field sampling activities. The Respondents shall support U.S. EPA's and Ohio EPA's initiation and conduct of activities related to the implementation of oversight activities.

SCOPE:

The tasks Respondents shall complete as part of this RI/FS are:

- Task 1: Project Scoping and RI/FS Planning Documents
- Task 2: Community Relations
- Task 3: Site Characterization
- Task 4: Remedial Investigation Report
- Task 5: Treatability Studies
- Task 6: Development and Screening of Alternatives (Technical Memorandum)
- Task 7: Detailed Analysis of Alternatives (FS Report)
- Task 8: Progress Reports

TASK 1: PROJECT SCOPING AND RI/FS PLANNING DOCUMENTS

Scoping is the initial planning process of the RI/FS and is initiated by U.S. EPA prior to issuing special notice. During this time, the Site-specific objectives of the RI/FS, including the preliminary remedial action objectives, are determined by U.S. EPA. Scoping is initiated prior to negotiations between the Respondents and U.S. EPA, and is continued, repeated as necessary, and refined throughout the RI/FS process. In addition to developing the Site-specific objectives of the RI/FS, U.S. EPA will determine a general management approach for the Site.

Consistent with the general management approach, the Respondents and U.S. EPA will plan the specific project scope. The Respondents shall document the specific project scope in the RI/FS Planning Documents. Because the work required to perform a RI/FS is not fully known at the onset, and is phased according to a Site's complexity and the amount of available information, it may be necessary to modify the Planning Documents during the RI/FS to satisfy the objectives of the study.

The preliminary objectives for the remedial action at the Site, based on currently available information [see Chapter 4 of *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites* (EPA/540/P-91/001, February 1991) and Section 1.2 of *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites* (EPA 540-R-96-023, October 1996)] are:

- Contain and prevent direct contact with landfill contents and surface and subsurface soil in the Presumptive Remedy Area;
- Contain and prevent direct contact with landfill contents and surface and subsurface soil outside the Presumptive Remedy Area that pose an unacceptable current or potential future risk to human health or the environment;
- Minimize infiltration and resulting contaminant leaching to groundwater and surface water in areas where contaminants are currently leaching or have the potential to leach at concentrations that pose or would pose an unacceptable current or potential future risk to human health or the environment;
- Control surface water runoff and erosion;
- Treat or eliminate high levels of hazardous substances, pollutants, or contaminants (hot spots) to the extent practicable and necessary to protect human health and the environment;
- Collect and treat and/or contain contaminated groundwater and/or leachate to prevent further migration from the source area if the contaminated groundwater and/or leachate poses an unacceptable current or potential future risk to human health or the environment;

- Control and treat landfill gas and soil vapors that pose an unacceptable current or potential future risk to human health or the environment;
- Prevent exposure to contaminated groundwater above acceptable risk levels;
- Prevent or minimize further migration of the groundwater contaminant plume and actual or potential impacts to drinking water supplies and/or ecosystems (e.g., groundwater impacts to surface water, sediments, organisms and/or the food chain);
- Return the groundwater to its expected beneficial uses wherever practicable within a reasonable time frame for the Site;
- Remediate Site-related contaminated surface water and sediments;
- Remediate contaminated wetland areas that pose an unacceptable current or potential future risk to human health or the environment;
- Mitigate or abate other situations or factors that may pose a threat to public health, welfare, or the environment.

The strategy for achieving the remedial objectives and for the general management of the site will include the following. The Respondents shall:

- Conduct a remedial investigation and feasibility study consistent with the Municipal Landfill Guidance and the Presumptive Remedy Guidance to determine the extent of the landfilled materials to be contained in the Presumptive Remedy Area and to evaluate containment alternatives to address the direct contact risk from the landfilled materials in the Presumptive Remedy Area.
- Conduct a remedial investigation to fully determine the nature and extent of the release or threatened release of hazardous substances, pollutants, or contaminants in all Site areas and/or media not address by the Presumptive Remedy approach, and in all Site areas and/or media where the Respondents have not clearly indicated that there is a basis for remedial action and that a Presumptive Remedy approach is appropriate (see "Purpose" section of this SOW). In performing this investigation, the Respondents shall gather sufficient data, samples, and other information to fully characterize Site geology, hydrogeology, the nature and extent of the contamination at the Site, contaminant fate and transport mechanisms, and to support the human health and ecological risk assessments conducted for this Site. The RI shall include a hot spot investigation within and outside the Presumptive Remedy Area, and U.S. EPA may also require the Respondents to characterize the landfill materials and/or surface and subsurface soil within the Presumptive Remedy Area as a

component of other Site investigations (i.e., groundwater, leachate, landfill and soil gas, surface water and sediment, property re-use and closure requirements).

- Perform a conventional feasibility study to identify and evaluate a full range of alternatives (other than the containment alternatives evaluated to address the direct contact risk in the Presumptive Remedy Area) for the appropriate extent of remedial action to meet remedial action objectives and to prevent or mitigate the migration or the release or threatened release of hazardous substances, pollutants, or contaminants from the Site.
- If the remedial investigation reveals contamination in specific, identifiable areas of concern which may present an imminent and substantial endangerment to human health or the environment (e.g., groundwater vapors to homes along East River Road), the Respondents may propose or U.S. EPA may require an interim response action to address the threat identified. The Respondents may propose, subject to U.S. EPA review, comment and approval, with modifications if necessary, interim response actions that, if implemented, will protect human health and the environment and may contribute to the effectiveness of the remedial action eventually selected for this Site.

When scoping the specific aspects of the project, the Respondents shall meet with U.S. EPA to discuss all project planning decisions and special concerns associated with the Site. The Respondents shall perform the following activities as a function of the project planning process.

1.1. Site Background (RI/FS Guidance Section 2.2)

The Respondents shall gather and analyze the existing Site background information and shall conduct a Site visit to assist in planning the scope of the RI/FS.

1.1.1 *Collect and Analyze Existing Data* (RI/FS Guidance Section 2.2.2)

Before planning the RI/FS activities, the Respondents shall thoroughly compile and review all existing Site data. Specifically, this includes presently available data relating to the varieties and quantities of hazardous substances at the Site, past disposal practices, the results of previous sampling activities, and U.S. EPA's air photo analysis of the Site. Existing information about the Site is available in the 1991 Screening Site Inspection Report, the 1995 Focused Site Inspection Prioritization, the 1996 Site Team Evaluation Prioritization Report, the 2000 Environmental Remediation Report at Valley Asphalt prepared by TCA Environmental, and additional information submitted to U.S. EPA by Site owners. The Respondents shall refer to Table 2-1 of the RI/FS Guidance for a comprehensive list of data collection information sources. The Respondents shall use this information to determine the additional data needed to characterize the site and evaluate risks, better define potential applicable or relevant and appropriate requirements (ARARs), and develop a range of preliminarily identified remedial

alternatives. The Respondents shall establish Data Quality Objectives (DQOs) subject to U.S. EPA approval which specify the usefulness of existing data. U.S. EPA will make all decisions on the necessary data and DQOs.

1.1.2 *Conduct Site Visit*

The Respondents shall visit the Site during the project scoping phase to develop a better understanding of the Site, and focus on the sources and the areas of contamination, as well as potential exposure pathways and receptors at the Site. During the Site visit, the Respondents shall observe, to the extent possible, the site's physiography, hydrology, geology, and demographics, as well as natural resource, ecological and cultural features. The Respondents shall use this information to better scope the project, to determine the extent of additional data necessary to characterize the Site, to evaluate risks, better define potential ARARs, and narrow the range of preliminarily identified remedial alternatives.

1.2 Project Planning (RI/FS Guidance Section 2.2)

Once the Respondents have collected and analyzed existing data and conducted a Site visit, the Respondents shall plan the specific project scope. Project planning activities include those tasks described below as well as identifying data needs, developing a work plan, designing a data collection program and a quality assurance plan, and identifying health and safety protocols. These tasks are described in Section 1.3 of this Task since they may result in the development of specific required deliverables.

1.2.1 *Identify Data Needs and Design a Data Collection Program* (RI/FS Guidance Sections 2.2.6, 2.2.7, 3.2.2, 3.2.3, 3.2.4 and 3.2.5)

The Respondents shall analyze the currently available data and information and prepare a site conceptual model. Based on the currently available data and information and the site conceptual model, the Respondents shall determine which areas of the Site and other nearby areas require additional data and/or evaluation to characterize site conditions, define the extent of hazardous substances or contaminants at the Site, support modeling efforts, evaluate risks to human health and the environment, and develop and evaluate remedial alternatives. (Two data gaps are that most of the existing groundwater monitoring wells are screened 5 to 10 or more feet below the water table, and vertical contaminant profiling was not conducted). The Respondents shall design a data collection program that includes, but is not limited to, the activities listed below. The Respondents shall develop the data collection program consistent with Sections 3.2.2, 3.2.3, 3.2.4 and 3.2.5 of the RI/FS Guidance; U.S. EPA's *Risk Assessment Guidance for Superfund (RAGS) Volume I - Human Health Evaluation Manual Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments* (Final, EPA 540-R-97-033, OSWER 9285.7-01D, December 2001); *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites* (EPA/540/P-91/001, February 1991); and any other applicable guidance. The

Respondents shall incorporate the sampling results into the Site Characterization Technical Memorandum (Task 3.1), the Remedial Investigation Report (Task 4), the Human Health and Ecological Risk Assessments (Tasks 3.2 and 3.3) and the Feasibility Study (Task 7). Where modeling or screening is appropriate, the Respondents shall identify such models or screening methods to U.S. EPA in the Planning Documents (Task 1.3) or in technical memoranda prior to their use. The Planning Documents or technical memoranda shall justify the basis and technical appropriateness for using the proposed model(s) or screening methods, and, for modeling efforts, shall include a detailed description of the data that is needed and that is either available or that the Respondents shall collect to support the modeling. The Respondents shall provide all modeling inputs and outputs to U.S. EPA with a sensitivity analysis. If requested, the Respondents shall also provide U.S. EPA with the programming used in the modeling, including any proprietary programs.

1.2.1.1 Waste Characterization

The RI shall include an investigation to characterize the waste materials at the Site outside the Presumptive Remedy Area, and to identify and characterize potential hot spots, including hot spots within the Presumptive Remedy Area as required by U.S. EPA based on the data collected during the RI or as needed to meet the objectives of this SOW. This shall include an analysis of current information and data on past disposal practices at the Site. For buried wastes, the Respondents shall use analytical methods and/or methods such as test pits, trenches and/or soil borings to determine the chemical composition of the waste, waste depths, thicknesses and volume; the elevation of the underlying natural soil layer; and the extent of cover over fill areas and hazardous substances or contaminants when such information is not already known. The RI shall also include geophysical characterization methods, such as ground penetrating radar, magnetometry or tomography to assist in finding and/or further delineating landfill limits and potential hot spot areas. In addition to the hazardous substances or contaminants characterization described above, the RI shall include leaching tests to address the potential leaching of constituents from the waste materials to the environment.

For the Presumptive Remedy Area (to address the direct contact risk), the Respondents shall conduct an investigation to determine the extent of the landfilled materials to be contained as part of the Presumptive Remedy, and shall complete a Site survey to establish the containment limits on a surveyed base map. U.S. EPA may also require the Respondents to characterize the landfill materials within the Presumptive Remedy Area as a component of other Site investigations (i.e., hot spot, groundwater, leachate, landfill and soil gas, surface water and sediment, property re-use and closure requirements).

1.2.1.2 Surface and Subsurface Soils Investigation

The RI shall include an investigation to determine the extent of hazardous substances or contaminants in surface and subsurface soils at the Site and to identify and characterize any hot spots. This includes areas where airborne hazardous substances or contaminants may have been deposited as a result of open burning or burning in the air curtain destructor. The RI shall include investigations to determine the leachability of Site hazardous substances or contaminants into the groundwater. The RI shall include the collection of background soil samples for use in determining whether any hazardous substances or contaminants detected in Site soil are related to local and/or regional background conditions. The surface and subsurface soil investigation may also include an assessment of activities on adjacent properties that may also have impacted soil and/or groundwater at the Site. The results of the assessment shall be used to define potential data gaps and the need for additional sampling and/or other data collection activities during the RI.

For the Presumptive Remedy Area (to address the direct contact risk), the Respondents shall conduct an investigation to determine the extent of the surface and subsurface soil to be contained as part of the Presumptive Remedy, and shall complete a Site survey to establish the containment limits on a surveyed base map. U.S. EPA may also require the Respondents to characterize surface and subsurface soil within the Presumptive Remedy Area as a component of other Site investigations (i.e., hot spot, groundwater, leachate, landfill and soil gas, surface water and sediment, property re-use and closure requirements).

1.2.1.3 Leachate Investigation

The RI shall include a leachate investigation to determine the locations where the highest seasonal water table intersects the waste material and whether there is leachate within the fill, even if the wastes are above the water table. The Respondents shall define surface water drainage patterns; calculate a water balance; determine soil, climate and waste characteristics; and determine the depth to groundwater and groundwater flow direction and velocity. The leachate investigation shall include the collection of direct soil solute samples (e.g., using lysimeters or other methods) for chemical analysis. The Respondents shall use the results of the leachate investigation to assist in identifying and characterizing any hot spots and to determine contaminant fate and transport.

1.2.1.4. Hydrogeologic Investigation

The RI shall include investigative tasks to determine the degree of groundwater hazards; the mobility and fate and transport of groundwater pollutants; discharge and recharge areas, including the influence of the Great Miami River on the groundwater flow regime; regional and local groundwater flow direction and quality; the local uses of groundwater including the number, location, depth, and use of nearby private and

municipal wells; and current and potential future impacts to any and all private and municipal wells from the Site and to surface water and sediment in the Great Miami River, the large water-filled gravel pit in the southwest area of the Site and any other surface water bodies on-Site or in locations potentially impacted by the Site. The Respondents shall develop a strategy to determine the horizontal and vertical distribution of hazardous substances or contaminants in the groundwater and the extent and fate and transport of any groundwater plume(s) containing hazardous substances or contaminants. The RI shall also include other hydraulic tests such as slug tests, pumping tests and grain size analyses to assist in evaluating contaminant fate and transport and in developing potential remediation options. The RI shall include upgradient (background) samples and, if directed by U.S. EPA, samples from private and municipal wells. Where modeling is appropriate, the Respondents shall identify such models to U.S. EPA in a technical memorandum prior to their use. The Respondents shall support any discussions or evaluations of monitored natural attenuation with data collected consistent with the methods and protocols in the U.S. EPA *Region 5 Framework for Monitored Natural Attenuation Decisions for Groundwater* (September 2000).

1.2.1.5 Surface Water, Sediment and Floodplain Investigation

The RI shall include an investigation to determine the impacts from the Site on surface water, sediments and the floodplain of the Great Miami River; surface water and sediments in the large water-filled gravel pit in the southwest area of the Site; surface water and sediments in the large depression area in the west-central area of the Site if water is present in this area at the time of sampling; and any other creeks and/or wetlands that are or may be impacted by the Site. The RI shall include the collection of background surface water, sediment and floodplain samples for use in determining whether any hazardous substances or contaminants detected in surface water, sediment or the floodplain are related to local and/or regional background conditions. The scope of the investigation of the sediment and floodplain of the Great Miami River (beyond the current Site boundary) shall be based upon an investigation of flood history at the Site and potential contaminant migration pathways to the floodplain and river through groundwater, surface water, overland flow and leachate.

1.2.1.6 Landfill/Soil Gas and Air Investigation

The RI shall include landfill/soil gas surveys for the areas on and around the fill areas of the Site and above areas where vapors may migrate from groundwater, including areas where homes are located (e.g., along East River Road east/south of the site). The RI shall also include an investigation to determine the extent of atmospheric hazardous substances or contaminants from the various potential source areas at the Site. The investigation shall determine subsurface migration patterns and address the tendency of the substances identified through the waste characterization and other media sampling to enter the atmosphere. The investigation shall determine local wind patterns; the explosive hazards; and the degree of hazard posed by the direct inhalation

of hazardous substances or contaminants in the air and through gas migration and vapor intrusion into structures (existing and future). The Respondents shall also use the results of the landfill/soil gas and air investigation to assist in identifying and characterizing any hot spots.

1.2.1.7 Ecological Investigation

The RI shall include an ecological investigation to assess the impact to aquatic and terrestrial ecosystems within and adjacent to the Site as a result of the disposal, release, and migration of hazardous substances or contaminants. These ecosystems include the Great Miami River and floodplain areas, the large water-filled gravel pit in the southwest area of the Site, and any other creeks and/or wetlands that are or may be impacted by the Site. The RI shall include a description of the habitats and the ecosystems affected; an evaluation of toxicity; an assessment of endpoint organisms; the exposure pathways; an evaluation of potential ecological risk; the relevant exposure pathways; and an assessment of ecological concerns. The RI shall also include additional field work (e.g., toxicity testing, biological surveys, bioaccumulation collections, etc.) needed to support the assessment. The Respondents shall conduct the ecological investigation and assessment in accordance with U.S. EPA guidance, including *Ecological Risk Assessment Guidance for Superfund: Process for Designing and Conducting Ecological Risk Assessments* (June 5, 1997; EPA 540-R-97-006).

The ecological investigation for direct contact with contaminated materials in the Presumptive Remedy Area may be conducted consistent with the Municipal Landfill Guidance and the Presumptive Remedy Guidance since unacceptable risks to human health in this area indicate that remedial action is warranted and, consistent with the guidance, the presumptive remedy in this area is containment (i.e., a landfill cap). The scope of the ecological investigation of the sediment and floodplain of the Great Miami River (beyond the current Site boundary) shall be based upon an investigation of flood history at the Site and potential contaminant migration pathways to the floodplain and river through groundwater, surface water, overland flow and leachate.

1.2.1.8 Geotechnical Investigation

The Respondents shall collect sufficient geotechnical information during the RI, including, but not limited to, slope stability analyses and soil physical properties, to assist in developing and evaluating remedial alternatives and property use and reuse options during the FS. The geotechnical investigation shall be completed in accordance with the Municipal Landfill Guidance and any other relevant U.S. EPA guidance.

1.2.2.9 Evaluate and Document the Need for Treatability Studies (RI/FS Guidance Section 2.2.4)

If the Respondents or U.S. EPA identify remedial actions that involve treatment, the Respondents shall conduct treatability studies unless the Respondents satisfactorily demonstrate to U.S. EPA that such studies are not needed. When treatability studies are needed, the Respondents shall plan initial treatability testing activities (such as research and study design) to occur concurrently with Site characterization activities (see Task 1.3.1 and Task 5).

1.2.2 *Refine and Document Preliminary Remedial Action Objectives and Alternatives and Begin Preliminary Identification of Potential ARARs (RI/FS Guidance Sections 2.2.3 and 2.2.5)*

Once the existing site information has been analyzed and the Respondents and U.S. EPA have developed an understanding of potential site risks, the Respondents shall review and, if necessary, refine the remedial action objectives that have been identified by U.S. EPA for each actually or potentially contaminated medium. The Respondents shall document the revised preliminary remedial action objectives in a Preliminary Remedial Action Objectives Technical Memorandum, subject to U.S. EPA approval. The Respondents shall submit the Preliminary Remedial Action Objectives Technical Memorandum within 30 days of the effective date of the ASAOC. The Respondents shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Preliminary Remedial Action Objectives Technical Memorandum in the RI/FS Planning Documents (Task 1.3). The Respondents shall then identify a preliminary range of broadly defined potential remedial action alternatives and associated technologies relevant to the Site characteristics. The range of potential alternatives will encompass, where appropriate, alternatives in which treatment significantly reduces the toxicity, mobility, or volume of the waste; alternatives that involve containment with little or no treatment; and a no-action alternative.

The potential remedial action alternatives and technologies to address the direct contact risk with the landfill materials in the Presumptive Remedy Area shall be consistent with the Municipal Landfill Guidance and Presumptive Remedy Guidance.

1.2.3 *Begin Preliminary Identification of Potential ARARs (RI/FS Guidance Section 2.2.5)*

The Respondents shall conduct a preliminary identification of potential state and federal ARARs (chemical-specific, location-specific and action-specific) to assist in refining remedial action objectives and in the initial identification of remedial alternatives and ARARs associated with particular actions. ARAR identification will continue as Site conditions, contaminants, and remedial action alternatives are better defined.

1.3 RI/FS Planning Documents (RI/FS Guidance Section 2.3)

Within 60 calendar days of U.S. EPA's comments or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2), the Respondents shall submit draft RI/FS Planning Documents to U.S. EPA and Ohio EPA that address all data acquisition activities. The draft RI/FS Planning Documents shall include the draft RI/FS Work Plan (Task 1.3.1), a draft Sampling and Analysis Plan consisting of a draft Field Sampling Plan and a draft Quality Assurance Project Plan (Tasks 1.3.2, 1.3.2.1 and 1.3.2.2), and a draft Health and Safety Plan (Task 1.3.3). U.S. EPA will review and approve the RI/FS Planning Documents in consultation with Ohio EPA prior to the initiation of field activities. Following comment by U.S. EPA, the Respondents shall prepare final RI/FS Planning Documents which fully and satisfactorily address each of U.S. EPA's comments on the draft RI/FS Planning Documents. The final RI/FS Planning Documents shall include a response to comments explaining how each of U.S. EPA's comments on the draft RI/FS Planning Documents was addressed in the final RI/FS Planning Documents. The Respondents shall submit the final RI/FS Planning Documents to U.S. EPA and Ohio EPA within 30 calendar days of the receipt of U.S. EPA's comments on the draft RI/FS Planning Documents. The Respondents shall submit any subsequent revisions to any of the RI/FS Planning Documents, if required, to U.S. EPA and Ohio EPA within 21 calendar days of the receipt of U.S. EPA's comments on the final RI/FS Planning Documents. The Respondents shall not make any changes to the RI/FS Planning Documents that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the RI/FS Planning Documents in the response to comments. If the Respondents require additional time to respond to U.S. EPA's comments on the RI/FS Planning Documents, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule for the RI/FS Planning Documents or for specific RI/FS Planning Documents. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

Because of the unknown nature of the Site and the iterative nature of the RI/FS, additional data requirements and analyses may be identified throughout the process. The Respondents shall submit a technical memorandum documenting the need for additional data and identifying the DQOs whenever such requirements are identified. U.S. EPA may also require that the Respondents submit amendments to the RI/FS Work Plan and/or any of the other RI/FS Planning Documents to address additional data collection activities. In any event, the Respondents are responsible for fulfilling the additional data and analysis needs identified by U.S. EPA consistent with the general scope and objectives of this RI/FS.

1.3.1 *RI/FS Work Plan* (RI/FS Guidance Section 2.3.1 and Appendix B)

The Respondents shall submit a RI/FS Work Plan that documents the Site background, data evaluations and project planning completed during the scoping process (see Tasks 1.1 and 1.2). The Work Plan shall include a summary of the information collected during Task 1.1, including, but not limited to: Site location; description; physiography; hydrology; geology; demographics; ecological, cultural and natural resource features; a summary of the Site history; and a description of previous investigations and responses conducted at the Site by local, state, federal, or private parties. The Site background section shall discuss areas of waste handling and disposal activities based on U.S. EPA's 2002 air photo analysis of the Site and the 2000 Environmental Remediation Report at Valley Asphalt prepared by TCA Environmental, and overlay these areas on an air photo showing current Site conditions and the property lines for: 1) Valley Asphalt, 2) the property owned by Margaret Grillo and/or Kathryn Boesch and/or the South Dayton Dump Environmental Remediation Trust, 3) the property owned by the Miami Conservancy District (Lot 3274), 4) the property owned by Ronald Barnett (Lot 3252 and Lot 4610), and 5) the property owned by Jim City Salvage (Lot 3753 and Lot 4423) [or the current owner(s) of record]. The Site background section and air photo shall also discuss and show leased areas, nearby residences and buildings, the locations of existing groundwater monitoring wells and any other wells (e.g., well at Valley Asphalt), and previous surface water, sediment, and soil sampling locations. The Work Plan shall include a summary description of available data and identify areas where hazardous substances or contaminants were detected and the detected levels. This includes the data in the 1991 Screening Site Inspection Report, the 1995 Focused Site Inspection Prioritization, the 1996 Site Team Evaluation Prioritization Report, the 2000 Environmental Remediation Report at Valley Asphalt, and information submitted to the U.S. EPA by other Site owners. The RI/FS Work Plan shall include tables displaying the minimum and maximum levels of detected hazardous substances or contaminants in Site areas and media.

The RI/FS Work Plan shall include the preliminary objectives for the remedial action at the Site; preliminary potential state and federal ARARs (chemical-specific, location-specific and action-specific); a description of the Site management strategy developed by the Respondents and U.S. EPA during scoping; a preliminary identification of remedial alternatives; and data needs for fully characterizing the nature and extent of the contamination at the site, evaluating risks and developing and evaluating remedial alternatives consistent with the requirements of this SOW. The RI/FS Work Plan shall reflect coordination with treatability study requirements, if any (see Task 1.2.1.9 and Task 5). It shall also include a process for and manner of refining and/or identifying additional Federal and State ARARs, and for preparing the human health and ecological risk assessments and the feasibility study.

The RI/FS Work Plan shall include a detailed description of the tasks the Respondents shall perform, the information needed for each task, a detailed description of the information the Respondents shall produce during and at the conclusion of each task,

and a description of the work products that the Respondents shall submit to U.S. EPA and Ohio EPA. This includes the deliverables set forth in this SOW; a schedule for each of the required activities consistent with the RI/FS Guidance and other relevant guidance; and a project management plan including a data management plan (e.g., requirements for project management systems and software, minimum data requirements, data format and backup data management), monthly reports to U.S. EPA and Ohio EPA, and meetings and presentations to U.S. EPA and Ohio EPA at the conclusion of each major phase of the RI/FS. The Respondents shall refer to Appendix B of the RI/FS Guidance for a comprehensive description of the required contents of the RI/FS Work Plan.

1.3.1.1 Phased RI

The Respondents have proposed and U.S. EPA has agreed to a phased RI. The Phased RI shall meet all the objectives and requirements for conducting the RI provided in this SOW. The objective is to complete all field work for the Phased RI within 3 phases of field work and to have the Respondents submit the Site Characterization Technical Memorandum (Task 3.1) to U.S. EPA and OEPA within 270 calendar days (excluding days for U.S. EPA review) of U.S. EPA's approval of the RI/FS Work Plan and the Sampling and Analysis Plan including the Field Sampling Plan and the Quality Assurance Project Plan (Task 1.3.1, 1.3.2, 1.3.2.1 and 1.3.2.2). The actual number of phases of work conducted during the Phased RI and the amount of time needed to conduct any additional phases of work will depend on the findings of the previous phases of work and the conditions encountered during field work. The Respondents shall conduct the Phased RI in accordance with the schedule(s) in the U.S. EPA approved RI Planning Documents and Phased RI Planning Documents.

In the phased approach, the data collected during each phase of work shall be evaluated and used to assist in defining data gaps and developing investigative activities for the subsequent phase(s) of work. The RI/FS Work Plan shall include a detailed discussion of the specific RI/FS tasks planned for each phase, as well as a discussion of how the data collected during each phase will meet the objectives of that phase and be used to determine data gaps and work needed for each subsequent phase; and how this information will be presented to U.S. EPA for review and approval (e.g., Technical Memoranda, Phase 2 Work Plan/Sampling and Analysis Plan, Quality Assurance Project Plan, etc.).

When the Respondents believe that all the field work to complete the RI/FS has been satisfactorily completed and do not anticipate that any additional field work is necessary at that time, the Respondents shall submit, in the last Technical Memorandum for the Phased RI, a detailed explanation and justification to U.S. EPA for approval, in consultation with OEPA, explaining why the Respondents do not anticipate that any additional field work is necessary to complete the RI/FS at that time. In determining whether the Respondents may conclude field work or whether additional field work is needed, U.S. EPA will consider Site-related data and the objectives of the RI/FS and

this SOW. If U.S. EPA determines that additional field work is needed, the Respondents shall proceed with a subsequent phase of field work.

The field work for Phase 1 of the RI shall include those elements identified in Table 1.

Within 30 days of the completion of each phase of field work, the Respondents shall submit a draft Technical Memorandum documenting that phase of work and draft Phased RI/FS Planning Documents for the subsequent phase of field work (if required) to U.S. EPA and Ohio EPA for review and approval. The draft Technical Memorandum and subsequent Phase RI/FS Planning Documents shall include a clear and thorough presentation and analysis of all data collection activities from the previous phase of work and all planned data collection activities for the subsequent phase of work (if needed). U.S. EPA will review and approve the Technical Memorandum and the subsequent Phased RI/FS Planning Documents in consultation with Ohio EPA prior to the initiation or conclusion of field activities. Following comment by U.S. EPA, the Respondents shall prepare a final Technical Memorandum and Phased RI/FS Planning Documents which fully and satisfactorily address each of U.S. EPA's comments on the draft Technical Memorandum and Phased RI/FS Planning Documents. The final Technical Memorandum and Phased RI/FS Planning Documents shall include a response to comments explaining how each of U.S. EPA's comments on the draft Technical Memorandum and Phased RI/FS Planning Documents was addressed in the final Technical Memorandum and Phased RI/FS Planning Documents. The Respondents shall submit the final Technical Memorandum and Phased RI/FS Planning Documents to U.S. EPA and Ohio EPA within 21 calendar days of the receipt of U.S. EPA's comments on the draft Technical Memorandum and Phased RI/FS Planning Documents. The Respondents shall submit any subsequent revisions to the Technical Memorandum and/or any of the Phased RI/FS Planning Documents, if required, to U.S. EPA and Ohio EPA within 15 calendar days of the receipt of U.S. EPA's comments on the Technical Memorandum and/or final Phased RI/FS Planning Documents. The Respondents shall not make any changes to the Technical Memorandum or Phased RI/FS Planning Documents that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the Technical Memorandum and Phased RI/FS Planning Documents in the response to comments.

If the Respondents require additional time to respond to U.S. EPA's comments on the Technical Memorandum or Phased RI/FS Planning Documents, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule for the Technical Memorandum and/or Phased RI/FS Planning Documents or for specific Phased RI/FS Planning Documents. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

1.3.2 *Sampling and Analysis Plan* (RI/FS Guidance Section 2.3.2)

The Respondents shall prepare a Sampling and Analysis Plan (SAP) to ensure that sample collection and analytical activities are conducted in accordance with technically acceptable protocols and that the data meet the Site-specific DQOs. The SAP provides a mechanism for planning field activities and consists of a Field Sampling Plan (FSP) (Task 1.3.2.1) and a Quality Assurance Project Plan (QAPP) (Task 1.3.2.2). The FSP and the QAPP may be submitted as separate documents.

All sampling and analyses performed shall conform to U.S. EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures. The Respondents shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with U.S. EPA guidance.

Upon request by U.S. EPA, the Respondents shall have such a laboratory analyze samples submitted by U.S. EPA for quality assurance monitoring. The Respondents shall provide U.S. EPA the QA/QC procedures followed by all sampling teams and laboratories performing data collection and/or analysis. The Respondents shall also ensure the provision of analytical tracking information consistent with OSWER Directive No. 9240.0-2B, *Extending the Tracking of Analytical Services to PRP-Lead Superfund Sites*.

Upon request by U.S. EPA, the Respondents shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by the Respondents or their contractors or agents. The Respondents shall notify U.S. EPA not less than 10 business days in advance of any sample collection activity. U.S. EPA shall have the right to take any additional samples that it deems necessary.

1.3.2.1 *Field Sampling Plan* (RI/FS Guidance Section 2.3.2.3 and Appendix B)

For each investigation and data collection activity identified in Task 1.2.1 (*Identify Data Needs and Design a Data Collection Program*) and any additional data collection activities identified in Task 1.2 (*Project Planning*), the RI/FS Work Plan or during the course of the RI/FS, the Respondents shall submit a FSP that defines in detail the sampling and data-gathering methods that the Respondents shall use to collect the data. The FSP shall discuss how the specific tasks the Respondents shall perform shall meet the detailed Site-specific objectives of the RI/FS; the detailed objectives of each investigation (e.g., Tasks 1.2.1.1 to 1.2.1.9); and the DQOs.

For each investigation (e.g., waste characterization, etc.), the FSP shall present a statement of the problems and the potential problems posed by the Site; discuss previous sampling locations, analytical results and other relevant information (e.g., visual observations, historical records, air photo analyses); discuss the detailed objectives of each investigation, including the DQOs; and discuss and explain in detail

how the specific work and activities the Respondents shall perform as part of each investigation will meet the objectives of the investigation and be used in the remedial investigation, the human health and ecological risk assessments and the feasibility study.

For each investigation, the FSP shall include a detailed description of the sampling objectives; sample locations, depths and frequency; sampling equipment and procedures; field measurements, analyses and procedures; sample preservation and handling; the field notes that the Respondents shall collect; field quality assurance; planned analyses; standard operating procedures; and decontamination procedures. The FSP shall include step-by-step instructions and be written so that a field sampling team unfamiliar with the Site would be able to gather the samples and the required field information according to the approved protocols. The FSP shall explain and justify why specific equipment and sampling procedures were selected and how they are appropriate for the work being performed and the objectives of this investigation. The FSP shall also include one or more figures that show all previous sampling locations with notes for any significant findings including groundwater elevation contours and the planned RI sample locations on the same map. The FSP shall also include a schedule which identifies the timing for the initiation and completion of all tasks the Respondents shall complete as a part of the FSP. If the Respondents plan to collect data from existing monitoring wells, they must collect additional data and/or demonstrate to U.S. EPA's satisfaction that the wells are appropriately located and screened to meet the sampling objectives (e.g., most existing wells are screened 5 to 10 or more feet below the water table; vertical contaminant profiling not conducted).

1.3.2.2 Quality Assurance Project Plan (QAPP)

The Respondents shall prepare a Site-specific QAPP covering sample analysis and data handling for the samples and data collected during the RI. The Respondents shall prepare the QAPP in accordance with the *Region 5 Instructions on the Preparation of a Superfund Division Quality Assurance Project Plan Based on EPA QA/R-5* (Revision 0, June 2000); *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* (EPA/240/B-01/003, March 2001); and *EPA Guidance for Quality Assurance Project Plans (QA/G-5)* (EPA/600/R-98/018, February 1998). The QAPP shall describe the project objectives and organization, functional activities, and quality assurance and quality control (QA/QC) protocols the Respondents shall use to achieve the desired DQOs. The DQOs shall at a minimum reflect use of analytic methods to identify contamination and remediate contamination consistent with the levels for remedial action objectives identified in the National Contingency Plan, 40 C.F.R. Part 300. In addition, the QAPP shall address sampling procedures, sample custody, analytical procedures, and data reduction, validation, reporting and personnel qualifications. The Respondents shall also ensure the provision of analytical tracking information consistent with U.S. EPA's Office of Solid Waste and Emergency Response (OSWER) Directive No. 9240.0-2B *Extending the Tracking of Analytical Services to PRP-Lead*

Superfund Sites. Field personnel shall be available for U.S. EPA QA/QC training and orientation where applicable.

The Respondents shall demonstrate, in advance, to U.S. EPA's satisfaction, that each laboratory they may use is qualified to conduct the proposed work. This includes the use of methods and analytical protocols for the chemicals of concern in the media of interest within detection and quantification limits consistent with both QA/QC procedures and the DQOs in the U.S. EPA-approved QAPP for the Site. The laboratory must have and must follow an approved QA program.

If the Respondents select a laboratory that is not in the Contract Laboratory Program (CLP), the laboratory must use methods consistent with the CLP methods that would be used at this Site for the purposes proposed and the QA/QC procedures approved by U.S. EPA. Each laboratory and contractor who performs work involving environmental data operation activities for the Respondents under this ASAOC shall submit a Quality Management Plan (QMP) to U.S. EPA and Ohio EPA for review and to U.S. EPA for approval. The contractors' QMPs shall provide information on how the contractor's management will plan, implement, and assess its Quality System that complies with ANSI/ASQC E4-1994, *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs*. The Respondents shall prepare the QMPs according to *EPA Requirements for Quality Management Plans*, EPA QA/R-2, March 2001, or equivalent documentation. The Respondents may submit the QMPs as part of the QAPP or as separate documents. U.S. EPA may also require the Respondents to submit detailed information to demonstrate that a laboratory is qualified to conduct the work, including information on personnel qualifications, equipment and material specifications. The Respondents shall provide assurances that U.S. EPA and Ohio EPA have access to laboratory personnel, equipment and records for sample collection, transportation and analysis. Upon request by U.S. EPA, the Respondents shall allow U.S. EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by Respondents or their contractors or agents.

The Respondents shall participate in a pre-QAPP meeting or conference call with U.S. EPA. The purpose of this meeting or conference call is to discuss the QAPP requirements and to obtain any clarification needed to prepare the QAPP.

1.3.3 *Health and Safety Plan* (RI/FS Guidance Section 2.3.3 and Appendix B)

The Respondents shall prepare a Health and Safety Plan that conforms to their health and safety program and complies with the Occupational Safety and Health Administration (OSHA) regulations and protocols outlined in Title 29 of the Code of Federal Regulations (CFR), Part 1910. The Health and Safety Plan shall include the 11 elements described in the RI/FS Guidance such as a health and safety risk analysis, a description of monitoring and personal protective equipment, medical monitoring, and Site control. U.S. EPA does not "approve" the Respondent's Health and Safety Plan,

but rather U.S. EPA reviews it to ensure that all the necessary elements are included, and that the plan provides for the protection of human health and the environment, and after that review provides comments as may be necessary and appropriate. The safety plan must, at a minimum, follow the U.S. EPA's guidance document *Standard Operating Safety Guides* (Publication 9285.1-03, PB92-963414, June 1992).

TASK 2: COMMUNITY RELATIONS

U.S. EPA has the responsibility of developing and implementing community relations activities for the Site. The critical community relations planning steps performed by U.S. EPA and Ohio EPA include conducting community interviews and developing a Community Relations Plan. Although implementing the Community Relations Plan is the responsibility of U.S. EPA, the Respondents may assist by providing information regarding the Site's history; participating in public meetings; assisting in preparing fact sheets for distribution to the general public; or conducting other activities approved by U.S. EPA. All PRP-conducted community relations activities shall be planned and developed in coordination with U.S. EPA.

TASK 3: SITE CHARACTERIZATION AND RISK ASSESSMENT (RI/FS Guidance Chapter 3)

This task includes conducting site characterization and investigation activities (Task 3.1); the baseline human health risk assessment (Task 3.2) and the baseline ecological risk assessment (Task 3.3).

3.1 Site Characterization

The Respondents shall conduct the site characterization activities according to the U.S. EPA-approved RI/FS Work Plan, FSP and QAPP, and shall include the investigations and data collection activities identified in Task 1.2.1 (*Identify Data Needs and Design a Data Collection Program*), Task 1.2 (*Project Planning*); the RI/FS Work Plan; or during the course of the RI/FS. The Respondents shall document all field work and observations in detailed field logs and/or standard format information sheets (see Section 3.5.1 of the RI/FS Guidance for examples of the types of information that the Respondents must record). The Respondents must specify, in the RI Work Plan, the FSP and/or the QAPP, along with a description of the Respondents' sample management and tracking procedures, the methods of documentation and the types of information that the Respondents shall record. The Respondents shall coordinate field activities with U.S. EPA's Remedial Project Manager (RPM) at least 10 business days prior to any field mobilization and throughout the field activities.

The Respondents shall communicate the progress of the field activities to the RPM in the monthly progress reports (Task 8). The monthly progress reports shall summarize the field activities conducted each month including, but not limited to, drilling and sample locations, depths and descriptions; boring logs; sample collection logs; field

notes; problems encountered; solutions to problems; a description of any modifications to the procedures outlined in the RI/FS Work Plan, the FSP, the QAPP or the Health and Safety Plan with justifications for the modifications; a summary of all data received during the reporting period and the analytical results; and upcoming field activities. In addition, the Respondents shall provide the RPM or the entity designated by the RPM with all laboratory data within the monthly progress reports and in no event later than 90 days after samples are shipped for analysis.

Within 30 days of U.S. EPA's approval or conditional approval of the Technical Memorandum for the final phase of field work (Task 1.3.1.1), the Respondents shall submit a Site Characterization Technical Memorandum that addresses all of the Site and nearby areas. The Site Characterization Technical Memorandum shall be consistent with the ASAOC and this SOW. The Respondents shall address U.S. EPA's comments on the Site Characterization Technical Memorandum when the Respondents prepare the RI Report (Task 4). The Respondents shall complete a Site Characterization Technical Memorandum that addresses, but is not limited to, the elements listed below.

1. Introduction

- Purpose of Report
- Site Description and Background
 - Site Location and Physical Setting Including General Geology, Hydrology, Hydrogeology, Surrounding Land Use and Populations, Groundwater Use, Surface Water Bodies, Ecological Areas including Sensitive Ecosystems and Meteorology/Climatology
 - Past and Present Facility Operations/Site Usage and Disposal Practices, Including Waste Disposal/Operations Areas Based on Historical Air Photos
 - Previous Investigations and Results
- Report Organization

2. Study Area Investigations, Procedures and Methodologies, Including a Detailed Description of All Field Activities Associated with Site Characterization and Any Deviations from Approved Planning Documents (i.e., Describe How the RI Was Conducted)

- Detailed Sampling and Data Gathering Objectives; Data Gaps and Data Needs Identified During Project Scoping and Course of RI
- Surface Features Inventory, Including Topographic Mapping, etc.
- Surrounding Land Use and Population Inventories/Surveys

- Meteorology/Climate Data Collection
 - Presumptive Remedy Area for Direct Contact Risk Delineation and Delineation of any other Presumptive Remedy Areas
 - Waste Characterization Activities
 - Surface and Subsurface Soils Investigations
 - Leachate Investigations
 - Hydrogeologic Investigations and Groundwater Use Inventories
 - Surface Water, Sediment and Floodplain Investigations
 - Landfill/Soil Gas and Air Investigations
 - Ecological Investigations
 - Treatability Studies (if treatability studies are needed - Task 1.2.1.9)
3. Physical Characteristics of the Study Area, Analytical Results and Modeling
- Surface Features (Natural and Manmade) and Topography
 - Surrounding Land Use and Populations
 - Meteorology/Climate
 - Geology, Contaminant Source Areas, Presumptive Remedy Area(s), Waste Characterizations, Surface and Subsurface Soils, Hot Spots, Leachate, Analytical Data
 - Hydrogeology, Groundwater Conditions, Analytical Data, Contaminant Trends
 - Surface Water Hydrology and Surface Water, Sediment and Floodplain Characterizations, Analytical Data
 - Landfill/Soil Gas and Air Characterization, Analytical Data
 - Ecological Characterization and Sensitive Ecosystems
4. Summary of the Nature and Extent of Contamination, Contaminant Fate and Transport and Modeling Results
- Contaminant Source/Waste Areas, Surface and Subsurface Soil Contamination, Hot Spots and Leachate
 - Contaminant Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required by RI/FS Planning Documents or is otherwise conducted) Concentrations in Other Areas and Media.

- Groundwater Contaminants
 - Contaminant Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Groundwater Use; Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Concentrations in Other Areas and Media.
 - Surface Water and Sediments
 - Contaminants and Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Concentrations in Other Areas and Media.
 - Landfill/Soil Gas and Air
 - Contaminants and Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport; Buildings/Land Use; Migration to Other Areas and Media; Modeling (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required by RI/FS Planning Documents or is otherwise conducted); Concentrations in Other Areas and Media
 - Geotechnical Investigation
 - Soil Physical Properties; Slope Analyses, Bearing Capacity; and Cap Design Considerations.
5. Summary and Conclusions
- Summary
 - Nature and Extent of Contamination
 - Fate and Transport

- Conclusions
 - Data Limitations and Recommendations for Future Work
- 6. References
- 7. Tables and Figures
(at least one set of figures shall be no larger than 11" x 17")
- 8. Appendices
 - Log Books
 - Soil Boring Logs
 - Test Pit/Trenching Logs
 - Landfill/Soil Gas Probe Construction Diagrams
 - Direct Soil Solute Sampling Construction Diagrams
 - Monitoring Well Construction Diagrams
 - Sample Collection Logs
 - Private and Public Well Records
 - Analytical Data and Data Validation Reports
 - Detailed Modeling Reports (if modeling is required by RI/FS Planning Documents or is otherwise conducted)

3.2 Human Health Risk Assessment

The Respondents shall conduct a health risk assessment that focuses on current and potential future risks to persons coming into contact with Site-related hazardous substances or contaminants, as well as risks to nearby residential, recreational and industrial worker populations from exposure to hazardous substances or contaminants in groundwater, soils, sediments, surface water, landfill gas and soil vapors, air, and the ingestion of contaminated organisms in nearby impacted ecosystems. The human health risk assessment shall define central tendency and reasonable maximum estimates of exposure for current land use conditions and reasonable future land use conditions. When evaluating reasonable future land use scenarios, the human health risk assessment shall give consideration to any permanent legally enforceable and binding land use restrictions that pass with the chain of title on any Site properties. The human health risk assessment shall use data from the Site and nearby areas to identify the contaminants of concern (COCs), provide an estimate of how and to what extent human receptors might be exposed to these COCs currently and in the future (e.g., based on fate and transport modeling and/or changes in land or groundwater use), and provide an assessment of the health effects associated with these COCs. The human health risk assessment shall project the potential risk of health problems occurring if no cleanup action is taken at the Site and/or nearby areas; identify areas and/or media where risks exceed a cancer risk or 1E-6 and/or a hazard index of 1; and establish preliminary remediation goals for the COCs (carcinogenic and non-carcinogenic).

The Respondents shall conduct the human health risk assessment in accordance with U.S. EPA guidance including, at a minimum: *Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part A)*, Interim Final (EPA-540-1-89-002, OSWER Directive 9285.7-01A, December 1, 1989); and *Risk Assessment Guidance for Superfund (RAGS), Volume I - Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments)* Final (EPA 540-R-97-033, OSWER 9285.7-01D, December 2001).

Consistent with the Presumptive Remedy Guidance, the human health risk assessment shall include the streamlined risk assessment for direct contact with the landfill contents presented in this SOW to document the unacceptable risks posed by direct contact with the landfill materials in the Presumptive Remedy Area. Consistent with the Presumptive Remedy Guidance and other U.S. EPA guidance, the Respondents may also conduct a streamlined human health risk assessment for other Site areas and/or media for which available data indicate that contaminant levels are clearly above applicable or relevant and appropriate requirements and/or U.S. EPA's acceptable level of risk, and that remedial action is clearly warranted and a Presumptive Remedy approach is appropriate. The Respondents shall conduct a conventional human health risk assessment consistent with the requirements of this SOW for all Site areas and/or media where the Respondents have not clearly indicated that there is a basis for remedial action and that a Presumptive Remedy approach is appropriate.

The Respondents shall present and submit the results of the human health risk assessment in a draft Human Health Risk Assessment Report sent to Ohio EPA and U.S. EPA for review with the draft RI Report (60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum - see Task 4). The Human Health Risk Assessment Report shall also include the information that U.S. EPA will need to prepare the relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents* (EPA 540-R-98-031, July 1999) for the information that is needed). The Human Health Risk Assessment Report may be submitted as a separate document from the RI Report, although the Respondents must summarize the results and the conclusions of the human health risk assessment in the RI Report. Following comment by U.S. EPA, the Respondents shall prepare a final Human Health Risk Assessment Report which fully and satisfactorily addresses each of U.S. EPA's comments on the draft Human Health Risk Assessment Report. The final Human Health Risk Assessment Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the draft Human Health Risk Assessment Report was addressed in the final Human Health Risk Assessment Report. The Respondents shall submit the final Human Health Risk Assessment Report to Ohio EPA for review and to U.S. EPA for review and approval within 30 calendar days of the receipt of U.S. EPA's comments on the draft Human Health Risk Assessment Report. The Respondents shall submit any subsequent revisions to the Human Health Risk Assessment Report, if any are required, to Ohio EPA for review and to U.S. EPA for review and approval within 21

calendar days of the receipt of U.S. EPA's comments on the final Human Health Risk Assessment Report. If the Respondents require additional time to respond to U.S. EPA's comments on the Human Health Risk Assessment, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

The Respondents shall not make any changes to the Human Health Risk Assessment Report that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the Human Health Risk Assessment Report in the response to comments.

3.3 Ecological Risk Assessment

The Respondents shall conduct an ecological risk assessment in accordance with U.S. EPA guidance including, at a minimum: *Ecological Risk Assessment Guidance for Superfund, Process for Designing and Conducting Ecological Risk Assessments* (EPA-540-R-97-006, June 1997, OSWER Directive 9285.7-25). The ecological risk assessment shall describe the data collection activities conducted as part of Task 1.2.1.7 and the information listed below. In addition, the ecological risk assessment shall evaluate both current and potential future risks to ecosystems impacted and potentially impacted by the Site. The Respondents shall present the results of the ecological risk assessment in a draft Ecological Risk Assessment Report and submit the results with the draft RI Report (60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum - see Task 4). The Ecological Risk Assessment Report shall also include the information that U.S. EPA will need to prepare the relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents* (EPA 540-R-98-031, July 1999) for the information that is needed]. The Ecological Risk Assessment Report may be submitted as a separate document from the RI Report, although the results and the conclusions of the ecological risk assessment shall be summarized in the RI Report. Following comment by U.S. EPA, the Respondents shall prepare a final Ecological Risk Assessment Report which fully and satisfactorily addresses each of U.S. EPA's comments on the draft Ecological Risk Assessment Report. The final Ecological Risk Assessment Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the draft Ecological Risk Assessment Report was addressed in the final Ecological Risk Assessment Report. The Respondents shall submit the final Ecological Risk Assessment Report to Ohio EPA for review and to U.S. EPA for review and approval within 30 calendar days of the receipt of U.S. EPA's comments on the draft Ecological Risk Assessment Report. The Respondents shall submit any subsequent revisions to the Ecological Risk Assessment Report, if any are required, to Ohio EPA for review and to U.S. EPA for review and approval within 21

calendar days of the receipt of U.S. EPA's comments on the final Ecological Risk Assessment Report. If the Respondents require additional time to respond to U.S. EPA's comments on the Ecological Risk Assessment, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

The Respondents shall not make any changes to the Ecological Risk Assessment Report that are not a direct result of addressing agency comments. All revisions to the Ecological Risk Assessment Report shall be identified in the response to comments.

The Respondents shall submit draft and final Ecological Risk Assessment Reports that fully address, but are not limited to, the following elements:

- Project Scoping, Planning and Study Objectives
- Conceptual Model and Assessment Endpoints
- Chemicals of Concern, Sources of Data and the Analytical Procedures Used
- Stressor-Response and Exposure Profiles
- Risks to Assessment Endpoints, Including Risk Estimates and Adversity Evaluations
- Review and Summary of Major Areas of Uncertainty (As Well As the Direction) and the Approaches Used to Address Them
 - Degree of Scientific Consensus In Key Areas of Certainty
 - Major Data Gaps and Whether Gathering Additional Data Would Add Significantly to Overall Confidence in Assessment Results
 - Science Policy Judgements or Default Assumptions Used to Bridge Information Gaps and the Basis for these Assumptions
 - Elements of Quantitative Uncertainty Analysis Embedded in Risk Estimate

TASK 4: REMEDIAL INVESTIGATION (RI) REPORT

Within 60 calendar days following receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1), the Respondents shall submit a draft RI Report that addresses all of the Site and nearby areas. The RI Report shall either include or summarize the Human Health Risk Assessment Report and the Ecological Risk Assessment Report, and shall be consistent with the ASAOC and this SOW. The RI Report shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Site Characterization Technical Memorandum. The RI Report submittal shall include a response to comments that details how each of U.S. EPA's comments on the Site Characterization Technical Memorandum was addressed in the RI Report. The Respondents shall submit a RI Report that addresses, but is not limited to, the elements listed below. In addition, the RI Report shall also include the

information that U.S. EPA will need to prepare the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Documents* (EPA 540-R-98-031, July 1999) for the information that is needed]. Following comment by U.S. EPA, the Respondents shall prepare a final RI Report which fully and satisfactorily addresses each of U.S. EPA's comments on the draft RI Report. The final RI Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the draft RI Report was addressed in the final RI Report. The Respondents shall submit the final RI Report to Ohio EPA for review and to U.S. EPA for review and approval within 30 calendar days of the receipt of U.S. EPA's comments on the draft RI Report. The Respondents shall submit any subsequent revisions to the RI Report, if any are required, to Ohio EPA for review and to U.S. EPA for review and approval within 21 calendar days of the receipt of U.S. EPA's comments on the final RI Report. If the Respondents require additional time to respond to U.S. EPA's comments on the RI Report, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

The Respondents shall not make any changes to the RI Report that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the RI Report in the response to comments. The draft and final RI Reports shall fully address, but are not limited to, the following elements:

1. Executive Summary
2. Introduction
 - Purpose of Report
 - Site Description and Background
 - Site Location and Physical Setting Including General Geology, Hydrology, Hydrogeology, Surrounding Land Use and Populations, Groundwater Use, Surface Water Bodies, Ecological Areas including Sensitive Ecosystems and Meteorology/Climatology
 - Past and Present Facility Operations/Site Usage and Disposal Practices, Including Waste Disposal/Operations Areas Based on Historical Air Photos
 - Previous Investigations and Results
 - Report Organization
3. Study Area Investigations, Procedures and Methodologies, Including a Detailed Description of All Field Activities Associated with Site Characterization and Any Deviations from Approved Planning Documents (i.e., Describe How the RI Was Conducted)

- Detailed Sampling and Data Gathering Objectives; Data Gaps and Data Needs Identified During Project Scoping and Course of RI
 - Surface Features Inventory, Including Topographic Mapping, etc.
 - Surrounding Land Use and Population Inventories/Surveys
 - Meteorology/Climate Data Collection
 - Presumptive Remedy Area for Direct Contact Risk Delineation and Delineation of any other Presumptive Remedy Areas
 - Waste Characterization Activities
 - Surface and Subsurface Soils Investigations
 - Leachate Investigation
 - Hydrogeologic Investigations and Groundwater Use Inventories
 - Surface Water, Sediment and Floodplain Investigations
 - Landfill/Soil Gas and Air Investigations
 - Ecological Investigations
 - Treatability Studies (if treatability studies are needed - Task 1.2.1.9)
 - Geotechnical Investigation
4. Physical Characteristics of the Study Area, Analytical Results and Modeling
- Surface Features (Natural and Manmade) and Topography
 - Surrounding Land Use and Populations
 - Meteorology/Climate
 - Geology, Contaminant Source Areas, Presumptive Remedy Area for Direct Contact Risk and any other Presumptive Remedy Areas, Waste Characterizations, Surface and Subsurface Soils, Hot Spots, Leachate, Analytical Data
 - Hydrogeology, Groundwater Conditions, Analytical Data, Contaminant Trends
 - Surface Water Hydrology and Surface Water, Sediment and Floodplain Characterizations, Analytical Data
 - Landfill/Soil Gas and Air Characterization, Analytical Data
 - Ecological Characterization and Sensitive Ecosystems
 - Summary of the Nature and Extent of Contamination, Contaminant Fate and Transport and Modeling Results (if modeling is required in RI/FS Planning Documents or is otherwise conducted)
 - Contaminant Source/Waste Areas, Surface and Subsurface Soil Contamination, Hot Spots and Leachate
 - Contaminant Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required in RI/FS Planning Documents or is otherwise conducted); Detected and

Modeled (if modeling is required in RI/FS Planning Documents or is otherwise conducted) Concentrations in Other Areas and Media.

- Groundwater Contaminants
 - Contaminant Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Groundwater Use; Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required in RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required in RI/FS Planning Documents or is otherwise conducted) Concentrations in Other Areas and Media.
 - Surface Water and Sediments
 - Contaminants and Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport Processes; Migration to Other Areas and Media; Modeling (if modeling is required in RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required in RI/FS Planning Documents or is otherwise conducted) Concentrations in Other Areas and Media.
 - Landfill/Soil Gas and Air
 - Contaminants and Concentrations; Quantity, Volume, Size and/or Magnitude of Contamination; Potential Routes of Migration; Physical and Chemical Attributes and Contaminant Persistence; Contaminant Fate and Transport; Buildings/Land Use; Migration to Other Areas and Media; Modeling (if modeling is required in RI/FS Planning Documents or is otherwise conducted); Detected and Modeled (if modeling is required in RI/FS Planning Documents or is otherwise conducted) Concentrations in Other Areas and Media.
5. Human Health Risk Assessment Summary
 6. Ecological Risk Assessment Summary
 7. Summary and Conclusions
 - Summary
 - Nature and Extent of Contamination

- Fate and Transport
 - Risk Assessment
 - Conclusions
 - Data Limitations and Recommendations for Future Work
 - Recommended Remedial Action Objectives
8. References
 9. Tables and Figures
(at least one set of figures shall be no larger than 11" x 17")
 10. Appendices
 - Log Books
 - Soil Boring Logs
 - Test Pit/Trenching Logs
 - Landfill/Soil Gas Probe Construction Diagrams
 - Direct Soil Solute Sampling Construction Diagrams
 - Monitoring Well Construction Diagrams
 - Sample Collection Logs
 - Private and Public Well Records
 - Analytical Data and Data Validation Reports
 - Detailed Modeling Reports (if modeling is required in RI/FS Planning Documents or is otherwise conducted)

TASK 5: TREATABILITY STUDIES (RI/FS Guidance Chapter 5)

Based on currently available information, it is not certain whether treatability studies will be required to assist in the detailed analysis of Site alternatives. If U.S. EPA or the Respondents determine that treatability testing is necessary (Task 1.2.1.9), the Respondents shall conduct treatability studies as described in this Task 5 of this SOW. In addition, if applicable, the Respondents shall use the testing results and operating conditions in the detailed design of the selected remedial technology. The Respondents shall perform the following activities if treatability studies are needed.

5.1 Determine Candidate Technologies and of the Need for Testing (RI/FS Guidance Sections 5.2 and 5.4)

The Respondents shall submit a Candidate Technologies and Testing Needs Technical Memorandum, subject to U.S. EPA and Ohio EPA review and U.S. EPA approval, that identifies candidate technologies for a treatability studies program. The Respondents shall submit the technical memorandum as early as project planning (Task 1) to avoid any potential delays in the FS. The list of candidate technologies shall cover the range

of technologies required for alternatives analysis (Task 6.1). The Respondents shall determine and refine the specific data requirements for the testing program during Site characterization (Task 3) and the development and screening of remedial alternatives (Task 6).

5.1.1 *Conduct Literature Survey and Determine the Need for Treatability Testing* (RI/FS Guidance Section 5.2)

The Respondents shall conduct a literature survey to gather information on the performance, relative costs, applicability, removal efficiencies, operation and maintenance (O&M) requirements, and implementability of candidate technologies. If the Respondents have not sufficiently demonstrated practical candidate technologies, or if such technologies cannot be adequately evaluated for this Site on the basis of the available information, the Respondents shall conduct treatability testing. If U.S. EPA determines that treatability testing is necessary, and the Respondents cannot demonstrate to U.S. EPA's satisfaction that such testing is unnecessary, then the Respondents shall submit a statement of work to U.S. EPA and Ohio EPA that outlines the steps and the data necessary to evaluate and initiate the treatability testing program.

5.1.2 *Evaluate Treatability Studies* (RI/FS Guidance Section 5.4)

Once a decision has been made to perform treatability studies, the Respondents shall propose and U.S. EPA will decide on the type of treatability testing to use (e.g., bench versus pilot). Because of the time required to design, fabricate, and install pilot scale equipment as well as perform testing for various operating conditions, the decision to perform pilot testing will be made as early in the process as possible to minimize potential delays of the FS. To assure that a treatability testing program is completed on time, and with accurate results, the Respondents shall either submit a separate Treatability Testing Work Plan and SAP, or amendments to the original RI/FS Work Plan, FSP, QAPP for U.S. EPA and Ohio EPA review and U.S. EPA approval.

5.2 Treatability Testing and Deliverables (RI/FS Guidance Sections 5.5, 5.6 and 5.8)

In addition to the Candidate Technologies and Testing Needs Technical Memorandum, if treatability testing is needed, the Respondents shall also submit a Treatability Study Work Plan, a Sampling and Analysis Plan, a Health and Safety Plan and a Treatability Evaluation Report.

5.2.1 *Treatability Testing Work Plan and Sampling and Analysis Plan (SAP)* (RI/FS Guidance Section 5.5)

The Respondents shall prepare a Treatability Testing Work Plan and a SAP, or amendments to the original RI/FS Work Plan, FSP and QAPP for U.S. EPA and Ohio

EPA review and U.S. EPA approval that describes the Site background, the remedial technology(ies) to be tested, test objectives, experimental procedures, treatability conditions to be tested, measurements of performance, analytical methods, data management and analysis, health and safety, and residual waste management. The Respondents shall document the DQOs for treatability testing as well. If pilot scale treatability testing is to be performed, the Treatability Study Work Plan shall describe pilot plant installation and start-up, pilot plant operation and maintenance procedures, operating conditions to be tested, a sampling plan to determine pilot plant performance, and a detailed health and safety plan. If testing is to be performed off-Site, the plans shall address all permitting requirements. The requirements of SAPs are outlined in Task 1.3.2 of this SOW.

5.2.2 *Treatability Study Health and Safety Plan* (RI/FS Guidance Section 5.5)

If the original Health and Safety Plan is not adequate for defining the activities to be performed during the treatability tests, the Respondents shall submit a separate or amended Health and Safety Plan. Task 1.3.3 of this SOW provides additional information on the requirements of the Health and Safety Plan. U.S. EPA and Ohio EPA review, but do not "approve" the Treatability Study Health and Safety Plan.

5.2.3 *Treatability Study Evaluation Report* (RI/FS Guidance Section 5.6)

Following the completion of the treatability testing, the Respondents shall analyze and interpret the testing results in a technical report to U.S. EPA and Ohio EPA. Depending on the sequence of activities, this report may be a part of the Site Characterization Technical Memorandum (Task 3.1), the RI Report (Task 4) or submitted as a separate deliverable. The Treatability Study Evaluation Report shall evaluate each technology's effectiveness, implementability and cost, and actual results as compared with predicted results. The report shall also evaluate full scale application of the technology, including a sensitivity analysis identifying the key parameters affecting full-scale operation.

TASK 6: DEVELOPMENT AND SCREENING OF ALTERNATIVES (Technical Memorandum)

The Respondents shall develop and screen remedial alternatives to meet the remedial action objectives for the Site to determine an appropriate range of remedial options that the Respondents shall evaluate in the FS. This range of alternatives shall include, as appropriate, options in which treatment is used to reduce the toxicity, mobility, or volume of wastes, but which vary in the types of treatment, the amount treated, and the manner in which long-term residuals or untreated media are managed; options involving containment with little or no treatment; options involving both treatment and containment; and a no-action alternative. The Respondents shall perform the following activities as a function of the development and screening of remedial alternatives.

Consistent with the Presumptive Remedy Guidance, remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area and to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

Potential Remedial Alternatives may be screened and developed in accordance with *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites* (EPA/540/P-91/001, February 1991) and *Implementing Presumptive Remedies* (EPA 540-R-97-029, October 1997) (see sections for municipal landfills, contaminated groundwater and any other applicable sections). Presumptive remedies involve using remedial technologies that have been consistently selected at similar sites or for similar types of contamination. Using the presumptive remedy guidance provides an immediate focus to the identification and analysis of remedial alternatives.

6.1 Develop and Screen Remedial Alternatives (RI/FS Guidance Section 4.2)

The Respondents shall begin to develop and evaluate a range of appropriate remedial options that at a minimum ensure protection of human health and the environment and meet the remedial action objectives. The Respondents shall present and summarize the development and screening of the remedial alternatives in the Alternatives Screening Technical Memorandum (Task 6.2.2).

Consistent with the Presumptive Remedy Guidance, remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area and to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall be described and identified in the Alternatives Screening Technical Memorandum consistent with the Presumptive Remedy Guidance and other relevant U.S. EPA presumptive remedy guidance.

6.1.1 *Refine and Document Remedial Action Objectives* (RI/FS Guidance Section 4.2.1)

Based on the baseline human health and ecological risk objectives, the Respondents shall review and if necessary modify the Site-specific remedial action objectives, specifically the preliminary remedial action objectives established by U.S. EPA prior to or during negotiations between U.S. EPA and the Respondents. The preliminary remedial action objectives for the South Dayton Dump and Landfill Site are listed in Task 1 of this SOW. The Respondents shall document the revised remedial action objectives in a Remedial Action Objectives Technical Memorandum (Task 6.2.1) for U.S. EPA and Ohio EPA review and for U.S. EPA approval. The modified remedial

action objectives shall specify the constituents of concern and the media of interest; exposure pathways and receptors; and an acceptable contaminant level or range of levels (at particular locations for each exposure route).

6.1.2 *Develop General Response Actions* (RI/FS Guidance 4.2.2)

After U.S. EPA approves the modified remedial action objectives, the Respondents shall develop general response actions for each medium of interest including containment, treatment, excavation, pumping, or other actions, singly or in combination, to satisfy the U.S. EPA-approved remedial action objectives.

Consistent with the Presumptive Remedy Guidance, the general response action to address the unacceptable risk posed by direct contact with the landfill materials in the Presumptive Remedy Area shall be containment. The general response action(s) to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate shall also be consistent with the Presumptive Remedy Guidance and other relevant U.S. EPA presumptive remedy guidance.

6.1.3 *Identify Areas or Volumes of Media* (RI/FS Guidance Section 4.2.3)

The Respondents shall identify areas or volumes of media to which the general response actions may apply, taking into account requirements for protectiveness as identified in the remedial action objectives. The Respondents shall also take into account the chemical and physical characterization of the Site.

6.1.4 *Identify, Screen, and Document Remedial Technologies* (RI/FS Guidance Sections 4.2.4 and 4.2.5)

The Respondents shall identify and evaluate technologies applicable to each general response action to eliminate those that cannot be implemented at the Site. The Respondents shall refine applicable general response actions to specify remedial technology types. The Respondents shall identify technology process options for each of the technology types concurrently with the identification of such technology types or following the screening of considered technology types. The Respondents shall evaluate process options on the basis of effectiveness, implementability, and cost factors to select and retain one or, if necessary, more representative processes for each technology type. The Respondents shall summarize and include the technology types and process options in the Alternatives Screening Technical Memorandum. Whenever practicable, the alternatives shall also consider the CERCLA preference for treatment over conventional containment or land disposal approaches.

The preliminary list of alternatives to address the landfill contents, contaminated soil and air outside the Presumptive Remedy Area, and to address hot spots, sediments, surface water, groundwater, landfill gas and soil vapor contamination within and outside

the Presumptive Remedy Area shall consist of, but is not limited to, treatment technologies, removal and off-site treatment/disposal, removal and on-site disposal, and in-place containment for soils, sediments, and wastes. See 40 CFR 300.430(e)(1)-(7). The Respondents shall specify the reasons for eliminating any alternatives.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.5 *Assemble and Document Alternatives* (RI/FS Guidance Section 4.2.6)

The Respondents shall assemble the selected representative technologies into alternatives for each affected medium or operable unit. Together, all of the alternatives shall represent a range of treatment and containment combinations that shall address either the Site or the operable unit as a whole. The Respondents shall prepare a summary of the assembled alternatives and their related action-specific ARARs for the Alternatives Screening Technical Memorandum. The Respondents shall specify the reasons for eliminating alternatives during the preliminary screening process.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.6 *Refine Alternatives*

The Respondents shall refine the remedial alternatives to identify the volumes of contaminated media addressed by the proposed processes and size critical unit operations as necessary. The Respondents shall collect sufficient information for an adequate comparison of alternatives. The Respondents shall also modify the remedial action objectives for each chemical in each medium as necessary to incorporate any new human health and ecological risk assessment information presented in the Respondents' baseline human health and ecological risk assessment reports. Additionally, the Respondents shall update action-specific ARARs as the remedial alternatives are refined.

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill

materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given detailed analysis in the FS Report.

6.1.7 *Conduct and Document Screening Evaluation of Each Alternative* (RI/FS Guidance Section 4.3)

The Respondents may perform a final screening process based on short and long term aspects of effectiveness, implementability, and relative cost. Generally, this screening process is only necessary when there are many feasible alternatives available for a detailed analysis. If necessary, the Respondents shall conduct the screening of alternatives to assure that only the alternatives with the most favorable composite evaluation of all factors are retained for further analysis. As appropriate, the screening shall preserve the range of treatment and containment alternatives that was initially developed. The range of remaining alternatives shall include options that use treatment technologies and permanent solutions to the maximum extent practicable. The Respondents shall prepare an Alternatives Screening Technical Memorandum that summarizes the results and reasoning employed in screening; arrays the alternatives that remain after screening; and identifies the action-specific ARARs for the alternatives that remain after screening (Task 6.2.2).

Consistent with the Presumptive Remedy Guidance, this step is not required for remedial alternatives to contain and address the direct contact risk from the landfill materials in the Presumptive Remedy Area or to address other Site areas and/or media in which the risk assessment (streamlined or conventional) indicates that remedial action is clearly warranted and that a Presumptive Remedy approach is appropriate. Appropriate presumptive remedies shall be described in the Alternatives Screening Technical Memorandum and will be given full evaluation in the FS Report.

6.2 Alternatives Development and Screening Deliverables (RI/FS Guidance Section 4.5)

The Respondents shall prepare and submit two technical memoranda for this task.

6.2.1 *Remedial Action Objectives Technical Memorandum* (see Task 6.1.1)

The Respondents shall submit a Remedial Action Objectives Technical Memorandum (see Task 6.1.1) to Ohio EPA and U.S. EPA for review. The Respondents shall submit the Remedial Action Objectives Technical Memorandum at the same time as the Draft RI Report (60 days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum - see Task 4). The Respondents shall address and incorporate U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum in the Alternatives Screening Technical Memorandum (Task 6.2.2).

6.2.2 Alternatives Screening Technical Memorandum (see Tasks 6.1.1 to 6.1.7)

The Respondents shall submit an Alternatives Screening Technical Memorandum to Ohio EPA and U.S. EPA for review. The Alternatives Screening Technical Memorandum shall summarize the work performed during and the results of each of the above tasks (Task 6.1.1 to 6.1.7), and shall include an alternatives array summary. If required by U.S. EPA, the Respondents shall modify the alternatives array to assure that the array identifies a complete and appropriate range of viable alternatives to be considered in the detailed analysis. The Alternatives Screening Technical Memorandum shall document the methods, the rationale and the results of the alternatives screening process. The Alternative Screening Technical Memorandum shall also document the presumptive remedies to be evaluated in the FS, the remedial action objectives each presumptive remedy addresses, and the general response action of each presumptive remedy. The Respondents shall address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum in the draft FS Report (Task 7.2). The Respondents shall submit the Alternatives Screening Technical Memorandum within 21 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum.

TASK 7: DETAILED ANALYSIS of ALTERNATIVES (FS REPORT) (RI/FS Guidance Chapter 6)

The Respondents shall conduct and present a detailed analysis of remedial alternatives to provide U.S. EPA with the information needed to select a Site remedy.

7.1 Detailed Analysis of Alternatives (RI/FS Guidance Section 6.2)

The Respondents shall conduct a detailed analysis of the remedial alternatives for the Site. The detailed analysis shall include an analysis of each remedial option against a set of nine evaluation criteria, and a comparative analysis of all options using the same nine criteria as a basis for comparison.

7.1.1 *Apply Nine Criteria and Document Analysis* (RI/FS Guidance Sections 6.2.1 to 6.2.4)

The Respondents shall apply the nine evaluation criteria to the assembled remedial alternatives to ensure that the selected remedial alternative will protect human health and the environment and meet remedial action objectives; will comply with, or include a waiver of, ARARs; will be cost-effective; will utilize permanent solutions and alternative treatment technologies, or resource recovery technologies, to the maximum extent practicable; and will address the statutory preference for treatment as a principal element. The evaluation criteria include: (1) overall protection of human health and the environment and how the alternative meets each of the remedial action objectives; (2) compliance with ARARs; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility, or volume; (5) short-term effectiveness; (6) implementability; (7) cost;

(8) state (or support agency) acceptance; and (9) community acceptance. (Note: criteria 8 and 9 are considered after the RI/FS report has been released to the general public.) For each alternative the Respondents shall provide: (1) A description of the alternative that outlines the waste management strategy involved and identifies the key ARARs associated with each alternative, and (2) A discussion of the individual criterion assessment. If the Respondents do not have direct input on criteria (8) state (or support agency) acceptance and (9) community acceptance, U.S. EPA will address these criteria.

7.1.2 *Compare Alternatives Against Each Other and Document the Comparison of Alternatives* (RI/FS Guidance Sections 6.2.5 and 6.2.6)

The Respondents shall perform a comparative analysis between the remedial alternatives. That is, the Respondents shall compare each alternative against the other alternatives using the evaluation criteria as a basis of comparison. U.S. EPA will identify and select the preferred alternative. The Respondents shall present and discuss the detailed results of the comparative analysis of alternatives in the draft FS Report (Task 7.2). The comparative analysis of alternatives in the draft FS Report (Task 7.2) shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2) and the draft FS Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the Alternatives Screening Technical Memorandum was addressed in the draft FS Report.

7.2 Feasibility Study Report (RI/FS Guidance Section 6.5)

Within 60 days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2), the Respondents shall prepare and submit a draft FS Report for U.S. EPA and Ohio EPA review. The FS Report shall be consistent with the ASAO and this SOW and shall fully and satisfactorily address and incorporate U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2). The FS Report submittal shall include a response to comments explaining how each of U.S. EPA's comments on the Alternatives Screening Technical Memorandum was addressed in the FS Report. The FS report shall summarize the development and screening of the remedial alternatives (Task 6) and present the detailed analysis of remedial alternatives (Task 7.1). In addition, the FS Report shall also include the information U.S. EPA will need to prepare relevant sections of the Record of Decision (ROD) for the Site [see Chapters 6 and 9 of U.S. EPA's *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents* (EPA 540-R-98-031, July 1999) for the information that is needed]. Following comment by U.S. EPA, the Respondents shall prepare a final FS Report which fully and satisfactorily addresses each of U.S. EPA's comments on the draft FS Report. The final FS Report submittal shall include a response to comments detailing how each of U.S. EPA's comments on the draft FS Report was addressed in the final FS Report. The Respondents shall submit the final FS Report to Ohio EPA for review and to U.S.

EPA for review and approval within 21 calendar days of the receipt of U.S. EPA's comments on the draft FS Report. The Respondents shall submit any subsequent revisions to the FS Report, if any are required, to Ohio EPA for review and to U.S. EPA for review and approval within 15 calendar days of the receipt of U.S. EPA's comments on the final FS Report. If the Respondents require additional time to respond to U.S. EPA's comments on the FS Report, the Respondents shall provide U.S. EPA with a written request to extend the submission schedule. The Respondents' request shall discuss the specific causes of the delay, as well as the actions the Respondents are taking and plan to take to address the issues causing the delay. Based on the supporting information provided in the request U.S. EPA may grant up to a 30-day extension in the submission schedule.

The Respondents shall not make any changes to the FS Report that are not a direct result of addressing agency comments. The Respondents shall identify all revisions to the FS Report in the response to comments.

The FS Report, as ultimately adopted or amended by U.S. EPA provides the basis for conducting a remedial action at the Site and documents the development and analysis of remedial alternatives. The Respondents shall refer to Section 6 of the RI/FS Guidance for an outline of the FS Report format and the required FS Report contents.

TASK 8: PROGRESS REPORTS

The Respondents shall submit monthly written progress reports to U.S. EPA and Ohio EPA concerning actions undertaken pursuant to the ASAO and this SOW, beginning 30 calendar days after the effective date of the ASAO, until the termination of the ASAO, unless otherwise directed in writing by the RPM. These reports shall include, but not be limited to, a description of all significant developments during the preceding period, including the specific work that was performed and any problems that were encountered; a copy and summary of the analytical data that was received during the reporting period; and the developments anticipated during the next reporting period, including a schedule of work to be performed, anticipated problems, and actual or planned resolutions of past or anticipated problems. The monthly progress reports will summarize the field activities conducted each month including, but not limited to drilling and sample locations, depths and descriptions; boring logs; sample collection logs; field notes; problems encountered; solutions to problems; a description of any modifications to the procedures outlined in the RI/FS Work Plan, the FSP, QAPP or Health and Safety Plan, with justifications for the modifications; a summary of all data received during the reporting period and the analytical results; and upcoming field activities. In addition, the Respondents shall provide the RPM or the entity designated by the RPM with all laboratory data within the monthly progress reports and in no event later than 60 days after samples are shipped for analysis for raw analytical data and 90 days after samples are shipped for analysis for validated analytical data.

South Dayton Dump Site
Moraine, Ohio
Montgomery County

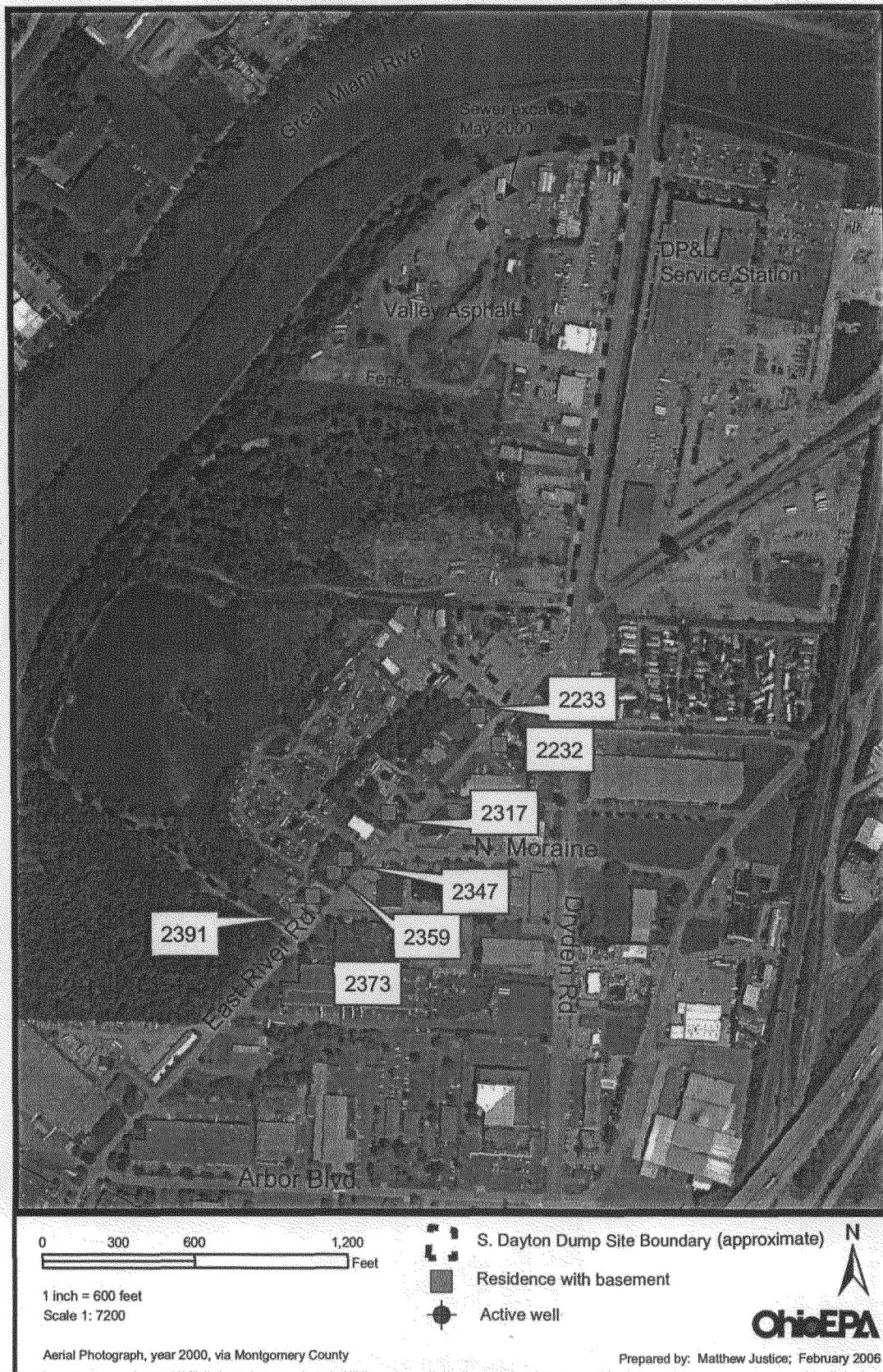


FIGURE 1

**South Dayton Dump Site
Montgomery County, Ohio**

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FIGURE 2

South Dayton Dump Site
Moraine, Ohio
Montgomery County

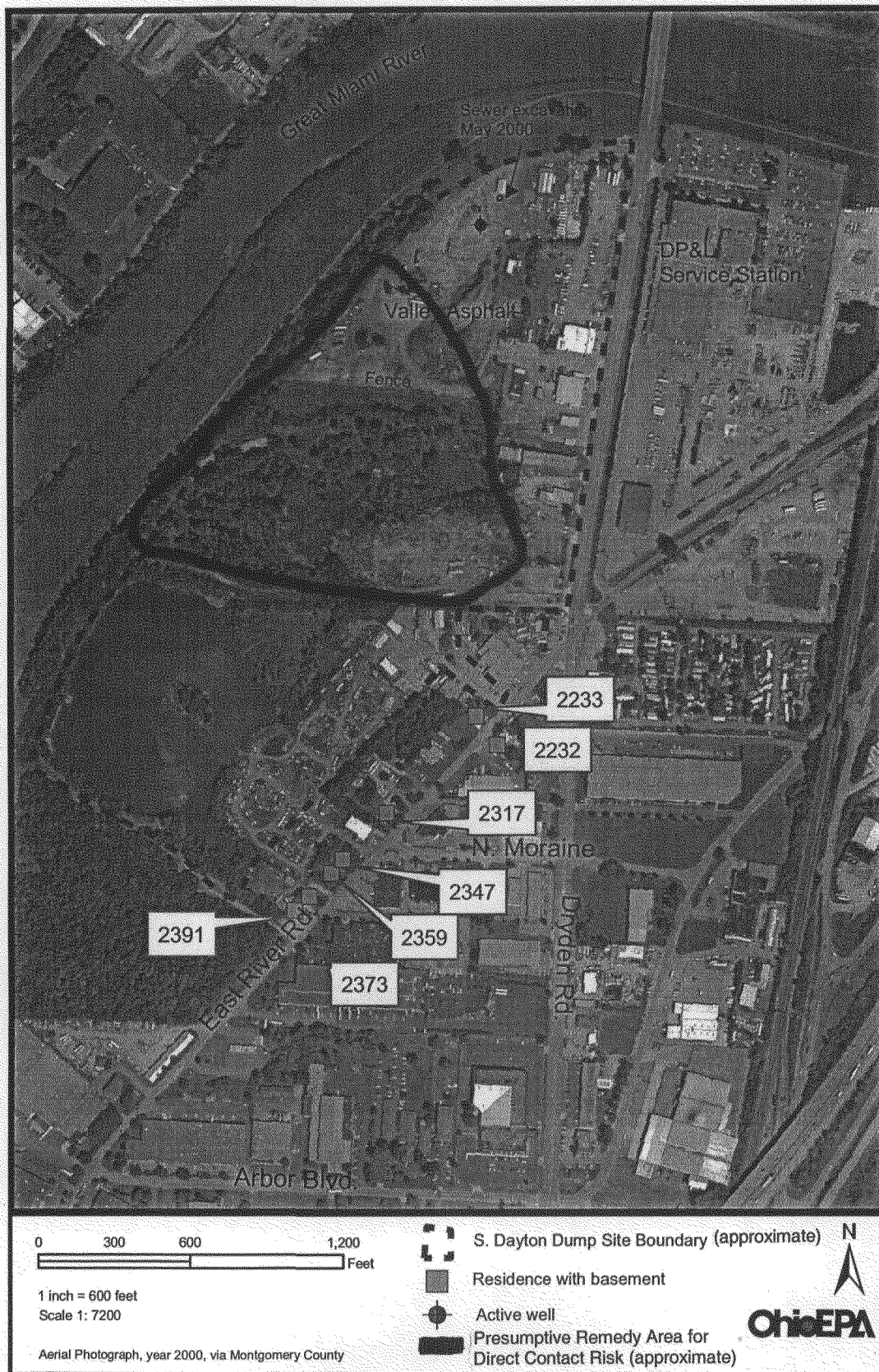


FIGURE 3

TABLE 1

**PHASE 1 REMEDIAL INVESTIGATION INSTALLATIONS
SOUTH DAYTON DUMP AND LANDFILL SITE
MORaine, OHIO**

Number and Type of Installation

- Geophysical Survey:
 - Open and accessible Site areas west of Dryden Road
- Land Survey:
 - Site
- Geoprobe shallow groundwater investigation
 - Up to 6 shallow geoprobe locations
- Nine test trenches
- Four test pits
- Five vertical profiles
- Five new shallow groundwater monitoring wells
- One shallow source area groundwater monitoring well
- Three new deep groundwater monitoring wells
- Two contingency deep groundwater monitoring wells
- Three shallow piezometers
- Up to 10 staff gauges
- Survey locations
- One surface soil sample and one subsurface soil sample at each new monitoring well or probe location
- Levee inspection
- Collect up to five soil samples for geotechnical analysis
- Bathymetry Survey of Quarry Pond
- Three sediment and three surface water samples
- Five landfill gas probes
- Wetland delineation

EXHIBIT A

SCHEDULE FOR MAJOR DELIVERABLES

DELIVERABLE	DUE DATE
TASK 1.2.2 - Preliminary Remedial Action Objectives Technical Memorandum	30 calendar days after the effective date of the ASAOC
TASK 1.3.1 - RI/FS Work Plan	Draft RI/FS Work Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final RI/FS Work Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft RI/FS Work Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
Task 1.3.1.1 - Phased RI/FS Planning Documents	Draft Technical Memorandum for each phase of field work and draft Phased RI/FS Planning Documents (RI/FS Work Plan, Field Sampling Plan, Quality Assurance Project Plan and Health and Safety Plan) for next phase of work (if required) due 30 days after the completion of each phase of field work. Final Technical Memorandum and Phased RI/FS Planning Documents due 21 calendar days after receipt of U.S. EPA's comments on draft Technical Memorandum and draft Phased RI/FS Planning Documents. Any subsequent revisions, if required, are due within 15 calendar days of receipt of U.S. EPA's comments.

DELIVERABLE	DUE DATE
TASK 1.3.2.1 - Field Sampling Plan	Draft Field Sampling Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Field Sampling Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft Field Sampling Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 1.3.2.2 - Quality Assurance Project Plan and Quality Management Plan(s)	Draft Quality Assurance Project Plan and Quality Management Plan(s) due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Quality Assurance Project Plan and Quality Management Plan(s) due 30 calendar days after receipt of U.S. EPA's comments on the draft Field Sampling Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 1.3.3 - Health and Safety Plan	Draft Health and Safety Plan due 60 calendar days after receipt of U.S. EPA's comments on or approval of the Preliminary Remedial Action Objectives Technical Memorandum (Task 1.2.2). Final Health and Safety Plan due 30 calendar days after receipt of U.S. EPA's comments on the draft Health and Safety Plan. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 3.1 - Site Characterization	In accordance with the schedule(s) in the U.S. EPA approved RI Planning Documents (Tasks 1.3.1, 1.3.2, 1.3.2.1 and 1.3.2.2) and Phased RI Planning Documents (Task 1.3.1.1)

DELIVERABLE	DUE DATE
Task 3.1 - Site Characterization Technical Memorandum	30 days after U.S. EPA's approval (or conditional approval) of the Technical Memorandum for the final phase of field work (Task 1.3.1.1).
Task 3.2 - Human Health Risk Assessment Report	Draft Human Health Risk Assessment Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final Human Health Risk Assessment Report due 30 calendar days after receipt of U.S. EPA's comments on the draft Human Health Risk Assessment Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
Task 3.3 - Ecological Risk Assessment Report	Draft Ecological Risk Assessment Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final Ecological Risk Assessment Report due 30 calendar days after receipt of U.S. EPA's comments on the draft Ecological Risk Assessment Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 4 - RI Report	Draft RI Report due 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1). Final RI Report due 30 calendar days after receipt of U.S. EPA's comments on the draft RI Report. Any subsequent revisions, if required, are due within 21 calendar days of receipt of U.S. EPA's comments.
TASK 5.1 - Candidate Technologies and Testing Needs Technical Memorandum	During Task 1 - Project Planning or early enough in the RI/FS to avoid potential delays in the FS.

DELIVERABLE	DUE DATE
TASK 5.2.1 - Draft and Final Treatability Testing Work Plan and SAP or Amendments to the Original RI/FS Work Plan, FSP and/or QAPP.	As approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 5.2.2 - Draft and Final Treatability Testing Health and Safety Plan or Amendment to the Original Health and Safety Plan	As approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 5.2.3 - Draft and Final Treatability Study Evaluation Report	With the Site Characterization Technical Memorandum (Task 3.1), the RI Report (Task 4), or as approved by U.S. EPA in the RI/FS Work Plan (Task 1.3.1).
TASK 6.2.1 - Remedial Action Objectives Technical Memorandum	With the draft RI Report (Task 4) - 60 calendar days after receipt of U.S. EPA's comments on the Site Characterization Technical Memorandum (Task 3.1).
TASK 6.2.2 - Alternatives Screening Technical Memorandum	21 calendar days after receipt of U.S. EPA's comments on the Remedial Action Objectives Technical Memorandum (Task 6.2.1)
TASK 7.1.2 - Comparative Analysis of Alternatives Technical Memorandum	21 calendar days after receipt of U.S. EPA's comments on the Alternatives Screening Technical Memorandum (Task 6.2.2).
Task 7.2 - FS Report	Draft FS Report due 21 calendar days after receipt of U.S. EPA's comments on the Comparative Analysis of Alternatives Technical Memorandum (Task 7.1.2). Final RI Report due 21 calendar days after receipt of U.S. EPA's comments on the draft FS Report. Any subsequent revisions, if required, are due within 15 calendar days of receipt of U.S. EPA's comments.
TASK 8: Monthly Progress Reports	On the 10 th day of each month or the first business day after the 10 th of the month commencing 30 calendar days after the effective date of the ASAOC.

DELIVERABLE	DUE DATE
Miscellaneous Documents	In accordance with the submittal date provided by RPM

EXHIBIT B PARTIAL LIST OF GUIDANCE

The following list, although not comprehensive, comprises many of the regulations and guidance documents that apply to the RI/FS process. The majority of these guidance documents, and additional applicable guidance documents, may be downloaded from the following websites:

<http://www.epa.gov/superfund/pubs.htm> (General Superfund)
<http://clu.in.org> (Site Characterization, Monitoring and Remediation)
<http://www.epa.gov/ORD/NRMRL/Pubs> (Site Characterization and Monitoring)
http://www.epa.gov/quality/qa_docs.html#guidance (Quality Assurance)
<http://www.epa.gov/superfund/programs/risk/toolthh.htm> (Risk Assessment - Human)
<http://www.epa.gov/superfund/programs/risk/tooleco.htm> (Ecological Risk Assessment)
<http://www.epa.gov/superfund/programs/lead> (Risk Assessment - Lead)
<http://cfpub.epa.gov/ncea> (Risk Assessment - Exposure Factors/Other)
<http://www.epa.gov/nepis/srch.htm> (General Publications Clearinghouse)
<http://www.epa.gov/clariton/clhtml/pubtitle.html> (General Publications Clearinghouse)

1. The (revised) National Contingency Plan;
2. *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9355.3-01, EPA/540/G-89/004, October 1988.
3. *Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites*, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-91/001, February 1991.
4. *Implementing Presumptive Remedies*, U.S. EPA, Office of Emergency and Remedial Response, EPA-540-R-97-029, October 1997.
5. *Presumptive Remedy for CERCLA Municipal Landfill Sites*, U.S. EPA, OSWER Directive No. 9355.0-49FS, EPA-540-F-93-035, September 1993.
6. *Presumptive Remedies: CERCLA Landfill Caps RI/FS Data Collection Guide*, U.S. EPA, OSWER 9355.3-18FS, EPA/540/F-95/009, August 1995.
7. *Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Ground Water at CERCLA Sites*, OSWER 9283.1-12, EPA-540-R-96-023, October 1996.
8. *Field Analytical and Site Characterization Technologies Summary of Applications*, U.S. EPA, EPA-542-F-97-024, November 1997.

9. *CLU-IN Hazardous Waste Clean-Up Information World Wide Web Site*, U.S. EPA, EPA-542-F-99-002, February 1999.
10. *Field Sampling and Analysis Technology Matrix and Reference Guide*, U.S. EPA, EPA-542-F-98-013, July 1998.
11. *Subsurface Characterization and Monitoring Techniques: A Desk Reference Guide, Volumes 1 and 2*, U.S. EPA, EPA/625/R-93/003, May 1993.
12. *Use of Airborne, Surface, and Borehole Geophysical Techniques at Contaminated Sites: A Reference Guide*, U.S. EPA, EPA/625/R-92/007(a,b), September 1993.
13. *Innovations in Site Characterization: Geophysical Investigation at Hazardous Waste Sites*, U.S. EPA, EPA-542-R-00-003, August 2000.
14. *Innovative Remediation and Site Characterization Technology Resources*, U.S. EPA, OSWER, EPA-542-F-01-026b, January 2001.
15. *Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells*, U.S. EPA, EPA/600/4-89/034, 1991.
16. *Ground-Water Sampling Guidelines for Superfund and RCRA Project Managers*, U.S. EPA, EPA-542-S-02-001, May 2002.
17. *Ground Water Issue: Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, U.S. EPA, EPA/540/S-95/504, April 1996.
18. *Superfund Ground Water Issue: Ground Water Sampling for Metals Analysis*, U.S. EPA, EPA/540/4-89/001, March 1989.
19. *Resources for Strategic Site Investigation and Monitoring*, U.S. EPA, OSWER, EPA-542-F-010030b, September 2001.
20. *Region 5 Framework for Monitored Natural Attenuation Decisions for Groundwater*, U.S. EPA Region 5, September 2000.
21. *Ground Water Issue: Suggested Operating Procedures for Aquifer Pumping Tests*, U.S. EPA, OSWER, EPA/540/S-93/503, February 1993.
22. *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, U.S. EPA, EPA/600/R-98/128, September 1998.
23. *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action and Underground Storage Tank Sites*, U.S. EPA, OSWER Directive 9200.4-17P, April 21, 1999.

24. *Ground Water Issue: Fundamentals of Ground-Water Modeling*, U.S. EPA, OSWER, EPA/540/S-92/005, April 1992.
25. *Assessment Framework for Ground-Water Model Applications*, U.S. EPA, OSWER Directive #9029.00, EPA-500-B-94-003, July 1994.
26. *Ground-Water Modeling Compendium - Second Edition: Model Fact Sheets, Descriptions, Applications and Cost Guidelines*, U.S. EPA, EPA-500-B-94-004, July 1994.
27. *A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents*, U.S. EPA, Office of Solid Waste and Emergency Response, OSWER Directive No. 9200.1-23P, EPA 540-R-98-031, July 1999.
28. *Region 5 Instructions on the Preparation of A Superfund Division Quality Assurance Project Plan Based on EPA QA/R-5, Revision 0*, U.S. EPA Region 5, June 2000.
29. *Guidance for the Data Quality Objectives Process (QA-G-4)*, U.S. EPA, EPA/600/R-96/055, August 2000.
30. *Guidance for the Data Quality Objectives Process for Hazardous Waste Sites (QA/G-4HW)*, U.S. EPA, EPA/600/R-00/007, January 2000.
31. *Guidance for the Preparation of Standard Operating Procedures (QA-G-6)*, U.S. EPA, EPA/240/B-01/004, March 2001.
32. *EPA Requirements for Quality Management Plans (QA/R-2)*, U.S. EPA, EPA/240/B-01/002, March 2001.
33. *EPA Requirements for QA Project Plans (QA/R-5)*, U.S. EPA, EPA/240/B-01/003, March 2001.
34. *Guidance for Quality Assurance Project Plans (QA/G-5)*, U.S. EPA, EPA/600/R-98/018, February 1998.
35. *Users Guide to the EPA Contract Laboratory Program*, U.S. EPA, Sample Management Office, OSWER Directive No. 9240.0-01D, January 1991.
36. *Technical Guidance Document: Quality Assurance and Quality Control for Waste Containment Facilities*, U.S. EPA, EPA/600/R-93/182, 1993.
37. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part A)*, U.S. EPA, EPA/540/1-89/002, December 1989.

38. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals)*, U.S. EPA, EPA/540/R-92/003, OSWER Publication 9285.7-01B, December 1991.
39. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part C - Risk Evaluation of Remedial Alternatives)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-01C, October, 1991.
40. *Risk Assessment Guidance for Superfund - Volume I Human Health Evaluation Manual (Part D - Standardized Planning, Reporting, and Review of Superfund Risk Assessments)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-47, December 2001.
41. *Risk Assessment Guidance for Superfund: Volume III - Part A, Process for Conducting Probabilistic Risk Assessment*, U.S. EPA, OSWER Publication 9285.7-45, EPA-540-R-02-002, December 2001.
42. *Policy for Use of Probabilistic in Risk Assessment at the U.S. Environmental Protection Agency*, U.S. EPA, Office of Research and Development, 1997.
43. *Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors*, U.S. EPA, OSWER Directive 9285.6-03, March 25, 1991.
44. *Exposure Factors Handbook*, Volumes I, II, and III, U.S. EPA, EPA/600/P-95/002Fa,b,c, August 1997.
45. *Supplemental Guidance to RAGS: Calculating the Concentration Term*, U.S. EPA, OSWER Publication 9285.7-08I, May 1992.
46. *Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9355.4-12, EPA/540/F-94/043, July 14, 1994.
47. *Clarification to the 1994 Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*, U.S. EPA, OSWER Directive 9200.4-27, EPA/540/F-98/030, August 1998.

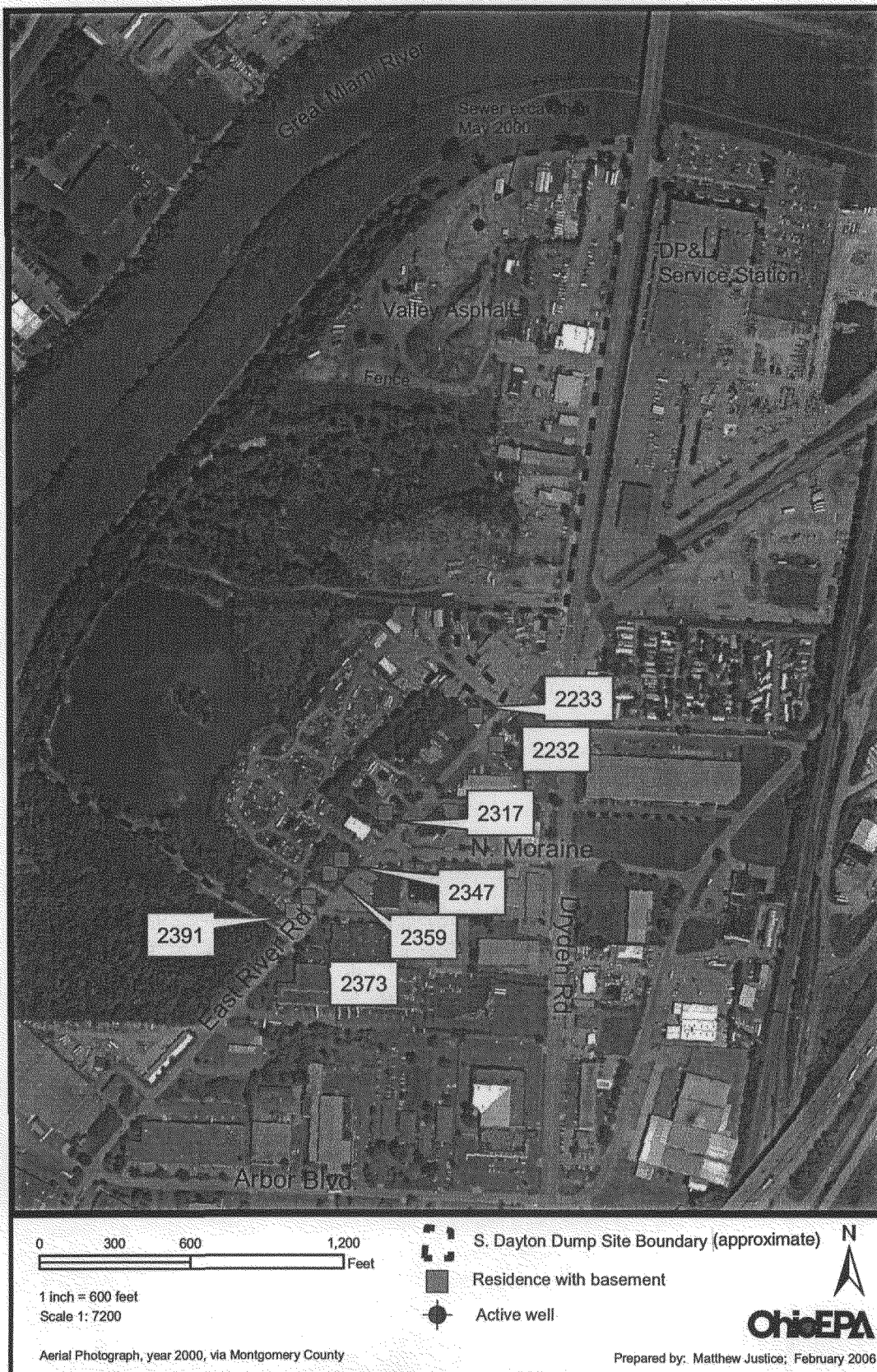
48. *Guidance Manual for the Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, U.S. EPA, OSWER Publication 9285.7-15-1, February 1994; and associated, clarifying Short Sheets on IEUBK Model inputs, including but not limited to OSWER 9285.7-32 through 34, as listed on the OSWER lead internet site at www.epa.gov/superfund/programs/lead/prods.htm.
49. *Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, Version 0.99D, NTIS PB94-501517, 1994 or *Integrated Exposure Uptake Biokinetic (IEUBK) Model for Lead in Children*, Windows© version, 2001,
50. *Role of the Baseline Risk Assessment in Superfund Remedy Selection Decisions*, U.S. EPA, OSWER Directive 9355.0-30, April 22, 1991.
51. *Performance of Risk Assessments in Remedial Investigation /Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)*, OSWER Directive No. 9835.15, August 28, 1990.
52. *Supplemental Guidance on Performing Risk Assessments in Remedial Investigation Feasibility Studies (RI/FSs) Conducted by Potentially Responsible Parties (PRPs)*, OSWER Directive No. 9835.15(a), July 2, 1991.
53. *Role of Background in the CERCLA Cleanup Program*, U.S. EPA, OSWER 9285.6-07P, April 26, 2002.
54. *Soil Screening Guidance: User's Guide*, U.S. EPA, OSWER Publication 9355.4-23, July 1996.
55. *Soil Screening Guidance: Technical Background Document*, U.S. EPA, EPA/540/R95/128, May 1996.
56. *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (Peer Review Draft), U.S. EPA, OSWER Publication 9355.4-24, March 2001.
57. *Ecological Risk Assessment Guidance for Superfund: Process for Designing & Conducting Ecological Risk Assessments*, U.S. EPA, OSWER Directive 9285.7-25, EPA-540-R-97-006, February 1997.
58. *Guidelines for Ecological Risk Assessment*, U.S. EPA, EPA/630/R-95/002F, April 1998.
59. *The Role of Screening-Level Risk Assessments and Refining Contaminants of Concern in Baseline Ecological Risk Assessments*, U.S. EPA, OSWER Publication 9345.0-14, EPA/540/F-01/014, June 2001.

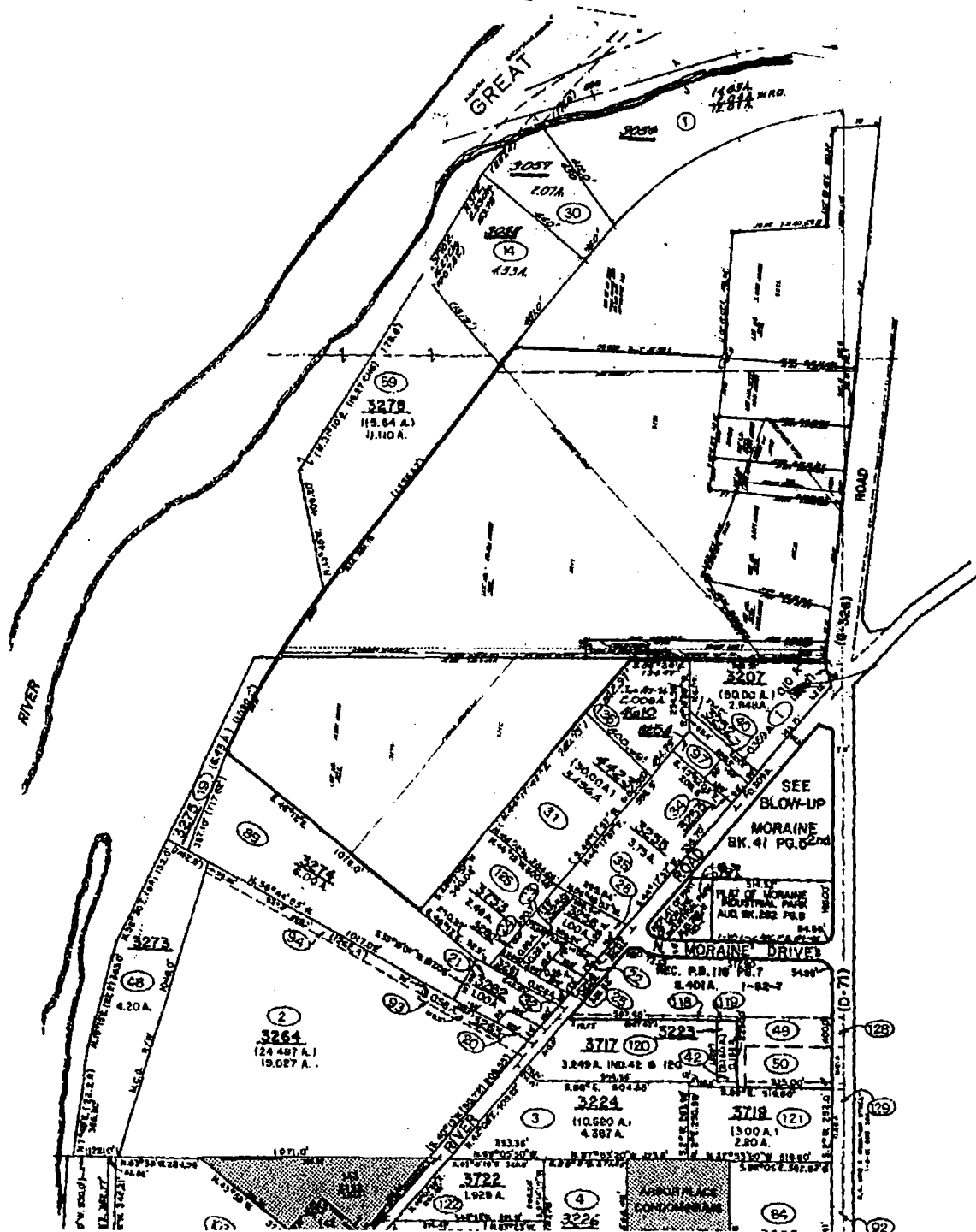
60. *Ecotox Thresholds*, U.S. EPA, OSWER Publication 9345.0-12FSI, EPA/540/F-95/038, January 1996.
61. *Issuance of Final Guidance: Ecological Risk Assessment and Risk Management Principles for Superfund Sites*, U.S. EPA, OSWER Directive 9285.7-28P, October 7, 1999.
62. *Guidance for Data Useability in Risk Assessment (Quick Reference Fact Sheet)*, OSWER 9285.7-05FS, September, 1990.
63. *Guidance for Data Useability in Risk Assessment (Part A)*, U.S. EPA, Office of Emergency and Remedial Response, Publication 9285.7-09A, April 1992.
64. *Guide for Conducting Treatability Studies Under CERCLA*, U.S. EPA, EPA/540/R-92/071a, October 1992.
65. *CERCLA Compliance with Other Laws Manual, Two Volumes*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9234.1-01 and -02, EPA/540/G-89/009, August 1988.
66. *Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites*, U.S. EPA, Office of Emergency and Remedial Response, (Interim Final), OSWER Directive No. 9283.1-2, EPA/540/G-88/003, December 1988.
67. *Considerations in Ground-Water Remediation at Superfund Sites and RCRA Facilities - Update*, U.S. EPA, OSWER Directive 9283.1-06, May 27, 1992.
68. *Methods for Monitoring Pump-and-Treat Performance*, U.S. EPA, EPA/600/R-94/123, June 1994.
69. *Pump-and-Treat Ground-Water Remediation A Guide for Decision Makers and Practitioners*, U.S. EPA, EPA/625/R-95/005, July 1996.
70. *Ground-Water Treatment Technology Resource Guide*, U.S. EPA, OSWER, EPA-542-B-94/009, September 1994.
71. *Land Use in the CERCLA Remedy Selection Process*, U.S. EPA, OSWER Directive No. 9355.7-04, May 25, 1995.
72. *Reuse Assessments: A Tool To Implement The Superfund Land Use Directive*, U.S. EPA, OSWER 9355.7-06P, June 4, 2001.
73. *Reuse of CERCLA Landfill and Containment Sites*, U.S. EPA, OSWER 9375.3-05P, EPA-540-F-99-015, September 1999.

74. *Reusing Superfund Sites: Commercial Use Where Waste is Left on Site*, U.S. EPA, OSWER 9230.0-100, February 2002.
75. *Covers for Uncontrolled Hazardous Waste Sites*, U.S. EPA, EPA/540/2-85/002, 1985.
76. *Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments*, U.S. EPA, OSWER, EPA/530-SW-89-047, July 1989.
77. *Engineering Bulletin: Landfill Covers*, U.S. EPA, EPA/540/S-93/500, 1993.
78. *Principles for Managing Contaminated Sediment Risks at Hazardous Waste Sites*, U.S. EPA OSWER Directive 9285.6-08, February 12, 2002.
79. *Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups*, U.S. EPA, OSWER 9355.0-74FS-P, EPA/540-F-00-005, September 29, 2000.
80. *Health and Safety Requirements of Employees Employed in Field Activities*, U.S. EPA, Office of Emergency and Remedial Response, EPA Order No. 1440.2, July 12, 1981.
81. *OSHA Regulations in 29 CFR 1910.120*, Federal Register 45654, December 19, 1986.
82. *Standard Operating Safety Guides*, PB92-963414, June 1992.
83. *Community Relations in Superfund: A Handbook*, U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0#3B June 1988; and OSWER Directive No. 9230.0-3C, January 1992.

Appendix B - Site Map and Figure

South Dayton Dump Site
Moraine, Ohio
Montgomery County





SITE CURRENTLY INCLUDES LOT
 Nos: 5054, 5171, 5172, 5173, 5174
 5175, 5176, 5177, 5178, 3274, 3753,
 4423, 4610 and 3252

South Dayton Dump Site
Montgomery County, Ohio

Sources: Montgomery Co. Appraisal District (2004)
 Grillot & Boesch Plat (1999)
 Approximate scale: 1"=500'



Appendix C - Respondents

**RESPONDENTS OF
ADMINISTRATIVE SETTLEMENT AGREEMENT AND ORDER ON CONSENT
FOR RI/FS
SOUTH DAYTON DUMP AND LANDFILL**

1. Kathryn Boesch
c/o Coolidge, Wall, Womsley & Lombard
Attn: Timothy Hoffman
33 West First Street
Suite 600
Dayton, OH 45402
2. General Motors Corporation
Attn: James P. Walle, Attorney
300 Renaissance Center
M/C 482-C24-024
Detroit, MI 48243
3. Margaret Grillot
c/o Coolidge, Wall, Womsley & Lombard
Attn: Timothy Hoffman
33 West First Street
Suite 600
Dayton, OH 45402
937-449-5540
4. Hobart Corporation
Attn: Philp S. Dallosto, Associate General Counsel
Illinois Tool Works, Inc.
3600 West Lake Avenue
Glenview, IL 60026
NOTE: Hobart Corporation is a wholly owned subsidiary of Illinois Tool Works, Inc.
5. Kelsey Hayes Company
Attn: David Bialosky, Vice President and General Counsel
TRW
12001 Tech Center Drive
Livonia, MI 48154
6. NCR Corporation
Attn: Susan Chema, Chief Litigation Counsel
1700 S. Patterson Blvd., WHQ-5E
Dayton, OH 45479